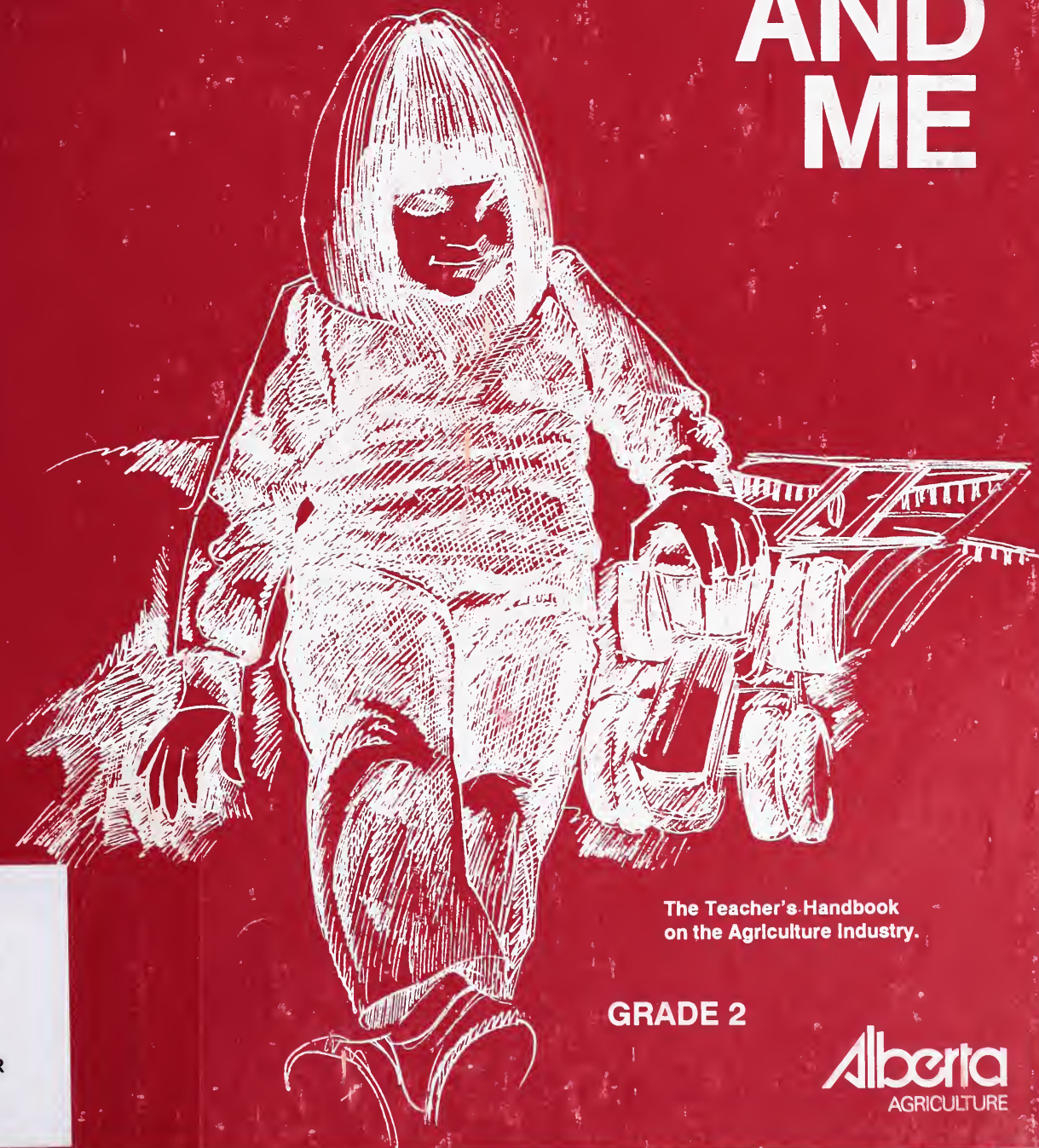


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AGRICULTURE AND ME



The Teacher's Handbook
on the Agriculture Industry.

GRADE 2

Alberta
AGRICULTURE

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JUN - 2 1992

AGRICULTURE AND ME
A Resource Book for Teachers
Division 1

Nadia Hochachka, Writer
1987
Carmen Bibby, Revision

ALBERTA AGRICULTURE
1989



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INTRODUCTION TO THE TEACHERS

Mom: (After child's first day at school)
What's the matter?

Child: Well it's not much fun. I can't read;
I can't write; and they won't let me talk!

- Author unknown



The above exchange reveals children's expectations that in school they will learn to read and write and that they will talk.

WELCOME TO THE GRADE
TWO HANDBOOK OF
AGRICULTURE AND ME!



Unlike the child in the above conversation, in all of the activities in Agriculture and Me children are expected to read and write, and most of the activities accommodate and encourage talk as a means of exploring or sharing ideas about agriculture.

THE AGRICULTURE AND ME SERIES

Agriculture and Me is a series of three books for those of you who teach in Division 1. These three handbooks suggest forty-six activities which you can use to help children increase their agricultural awareness. Our aim in preparing the handbooks has been to suggest activities that will be fun for children and will encourage them to begin to develop up-to-date notions of what farming is; also to begin to recognize what else agriculture is, in addition to farming - the network of interrelated services and businesses that are associated with farming. Through the activities children have opportunities to discover the ways in which their lives and welfare are affected by agriculture.

The need for Agriculture and Me stems from the fact that agriculture provides jobs to a significant number of Albertans and it provides essential products and services to all the rest of us, yet many of us are unaware of the scope and nature of the agriculture industry in our province. In addition many of us retain misconceptions about farming.

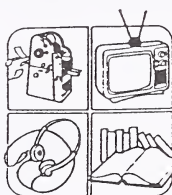
This series is part of a response to these facts. In turn these materials are part of an agriculture-in-the-classroom movement across the continent. The movement originates among farm people and others involved in agriculture whose aim is to help increase awareness about agriculture by providing resource materials for teachers.

While the focus of Agriculture and Me is on agriculture which relates to many social studies and science topics, we have selected activities with children's language development in mind. Our aim has been to suggest activities that allow for extensive use of language, both for learning and for sharing or communication. As well, we intend that the activities allow children to enjoy language and to develop increasing appreciation of and interest in it - attitudes critical to language development itself.

In many of the activities we have suggested group work. This takes into account the increasing amount of educational research that recognizes the essential role of social context in language development. Group work also allows the children to mobilize and refine their own knowledge through talk. Finally of course, group work allows the children to help each other and to develop attitudes of cooperation and acceptance so important in learning and living.

The activities in this series are designed to compliment three of the provincial curriculum guides:

LANGUAGE ARTS



SCIENCE



SOCIAL STUDIES



While we have related the units to the above provincial curriculum guides, which offer separate objectives for grades 1, 2, and 3, the handbooks are flexible resources. You will be able to adapt many of the activities for use with children at any point of development in primary school. This adaptability is consistent with the philosophical framework within which you work; it acknowledges the need for continuity and articulation among various learning experience of young children. The adaptability also is consistent with the fact that you are in the unique position to know what is possible and desirable for your children and comfortable for you in your particular circumstances. In addition, you are free to photocopy any of the materials in Agriculture and Me.

Curriculum Chart

The curriculum chart shows which content areas of Social Studies and Science are emphasized in particular activities; also what types of language arts activities are involved. The wording of the curriculum guides is used in the activity outlines.

Glossary

The glossary lists words by category - e.g. farm plants, farm equipment. Words are alphabetized within each category. We have included some words which are fairly common so as to point out their uses in an agricultural context.

Theme Character



HI THERE EVERYONE!

I am Slide the earthworm

Most of the time, I am processing soil
to help the farmers as they toil.

I am looming out from my home underground
to see where the AGRICULTURE industry is bound.

I have to admit that I have been in the dark
but I hope to put you right on the mark.

I will wriggle my way through as your guide
to all the new and exciting happenings inside.

author - C.G. Bibby

Activity Outline

The activities in this series have been grouped into nine units. The introduction to each unit offers a brief overview of the theme and general objectives for the group of activities in that unit. Individual activities have been written in a standard way and each one includes the following sections:

1. The Title
2. Study Question
 - a question to focus the activity; try to answer it before going ahead.
3. Subject Area
 - suggests which subject is emphasized in the activity.
4. The Activity
 - a concise statement of what children do.
5. Curriculum Concepts
 - a precise reference to curriculum statements found in your provincial curriculum guides for Language Arts, Social Studies, and Science.
6. Agriculture Concepts
 - suggests what the students will learn about agriculture.
7. Purpose
 - a brief description of the goal behind the activity.
8. Materials Required
 - a list of materials you will need for the activity.
9. Time Required
 - estimated time needed to complete the activity.
10. Procedure
 - a brief description of suggested steps to follow in introducing, carrying out, and concluding the activity; marginal notations highlight the steps and reflect the curriculum areas.
11. For Discussion
 - a brief list of questions that can be used in a discussion.
12. Evaluation Strategies
 - suggests methods of evaluation; the following two strategies, which stem from a focus on children's language development, apply to all the activities.
 - observe children's reactions and responses during the discussion.
 - observe the changes in the children's language during the activities (vocabulary - new words and phrases/ ideas - how they have changed).
13. Related Activities
 - additional activities that grow out of the main activity but may require additional resources as well as time.
14. Resource Sheets
 - resource material for student and teacher use:
 - pictures
 - information sheets which provide some background for the activities
 - samples of student activity sheets



symbol that marks
all student
resource material



symbol that marks all
information sheets or
other material for the
teachers

NOTE:

There are french student resource sheets corresponding to five of the activities that are provided in this book. You will find these sheets at the back under "Appendix B".

ALBERTA AGRICULTURE RESOURCES

Please contact the following address' for further information.

Agriculture Education Branch - Teacher Handbooks

Agriculture in the Classroom Program
Second Floor, J.G. O'Donoghue Building
7000 - 113 Street
Edmonton, Alberta
T6H 5T6
TELEPHONE: 427-2402



Information Services Division - Alberta Agriculture Information

Alberta Agriculture
Publications Office
Main Floor, J.G. O'Donoghue Building
7000 - 113 Street
Edmonton, Alberta
T6H 5T6
TELEPHONE: 427-0391



Information Services Division - Audio-Visual Material

Alberta Agriculture
Film Library
Main Floor, J.G. O'Donoghue Building
7000 - 113 Street
Edmonton, Alberta
T6H 5T6
TELEPHONE: 427-2127



FINAL COMMENTS

The preparation of Agriculture and Me has been an enjoyable way of reinforcing our awareness of the central place of agriculture in the lives of all of us in Alberta. We hope that you find these activities useful and that you enjoy doing some of them with your students. We look forward to your comments on this series.

ACKNOWLEDGEMENTS

In writing these handbooks I have received help from a large number of people. Though space does not allow me to specify each person's contribution, I would like to at least mention the people whose support I have valued so much.

First I want to thank Warren Wismer and Betty Gabert for the opportunity to work on this project that I endorse so strongly. As well, I want to thank Dr. Grace Malicky of the University of Alberta who put me in touch with Alberta Agriculture and thereby initiated an association that has been very interesting and enlightening for me.

I want to thank Betty Gabert not only for bringing me into the project but also for being the best kind of editor I could imagine. She has understood my needs and responded to them directly and thoughtfully. She has given me suggestions and perceptive criticism, which reflect her very comprehensive understanding of our project and of the perspective of teachers in classrooms. And she has demonstrated faith in me. Her leadership and collegiality have made my work productive and very pleasurable.

Another colleague who has offered steady support is Gabe Boulet. I have appreciated his thorough responses to my questions about agriculture, and I have enjoyed the many talks in which my questions led to fascinating explorations about agriculture. These discussions have fed both my writing and my enthusiasm.

I appreciate the staff I have worked with at Alberta Agriculture, especially Joyce Gingerich whose endless patience and good humor and her skill on the word processor have allowed me to move easily through a number of drafts of these handbooks.

Several teachers have been generous enough to read parts of my drafts and to offer comments from a classroom perspective. That was essential, and I have appreciated it very much.

While working on these handbooks I visited a number of farms around Edmonton. I appreciate the generosity of the farm people who shared their time and their experiences with me. I also greatly appreciate the co-operation of a number of people in agriculture who arranged for or prepared material about life on various types of farms.

Finally I want to thank my friends and family members who have generously offered suggestions and information as well as continual encouragement. Their curiosity, their prompts, and their praise have helped make this project a tremendous delight for me!

N.H.
December, 1986

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22. Mapping Your Neighbourhood Children identify agricultural landmarks in their community.	22.1
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LIST OF RESOURCES

UNIT 4 - ANIMAL GROUPS IN AGRICULTURE

Patterns for Animal Mobiles
A Day in the Life of a Sheep Dog
A Special Birthday Party (Note to Teacher)
A Special Birthday Party (Drawings)
Cheese Making (Information Sheet)
Dairying in Alberta (Pictures)
Crossword Puzzle: Farm Animals (Answer Sheet)
Crossword Puzzle: Farm Animals
Jigsaw Puzzles: Farm Animals

UNIT 5 - FARM LIFE: RURAL AND URBAN SETTINGS

City and Country Living: Bird's Eye View (Pictures)
Density of Population (Chart)
Life on a Farm (Written sketches)
Vacation on a Farm (Information Sheet)

UNIT 6 - PLANTS AND FOOD

Crops of Alberta (Information Sheets)
Log Sheet: Growing Plants
Brainstorm: Semantic Map
Focused Brainstorm (Semantic maps)
Plants Quiz
Plant Rhymes



CURRICULUM

CONNECTION

AGRICULTURE & ME - DIVISION 1 - GRADE TWO

Lesson Title	Subject Area	Curriculum Connection	Major Agricultural Concepts	Language Arts Skills
Unit Four				
16. Making Mobiles	Language Arts		Farm animals.	Follow directions; share information in conservations and inreports.
17. Animal Workers	Science	Describe and classify animals.	Animal workers	Identify details; read lists and pictures; report.
18. A Special Birthday Party	Science	Develop a respect for living things	Farmer as caretaker.	Read pictures and stories; identify sequence and write story endings.
19. How We Make Cheese	Science	Observe changes that occur in a regular pattern.	Food processing; dairying	Read pictures; identify details; form questions.
20. Crossword Puzzle: Farm Animals	Language Arts		Farming; farm animals.	Develop vocabulary; identify words in writing.
Unit Five				
21. Squeezing Together - Spreading Out	Science Social Studies	Consequences of man-made changes in the environment. Exploring my own neighbourhood.	Sections (of land).	Discuss observations.
22. Agricultural Landmarks in Your Neighbourhood.	Science Social Studies	Environment Interdependence Exploring my own neighbourhood.	Agricultural landmarks.	Form sensory images; identify and recall details.
23. Farmer For A Day	Social Studies	Canadian Communities Today.	Farm; farming; farmer.	Read reports; report observations.

AGRICULTURE & ME - DIVISION 1 - GRADE TWO

Lesson Title	Subject Area	Curriculum Connection	Major Agricultural Concepts	Language Arts Skills
Unit Five (cont'd)				
24. Family Portraits: Farmers	Social Studies	Canadian Communities Today.	Farmer; farm life.	Read reports; write in a journal; dramatize a character sketch.
25. Vacation on a Farm	Social Studies	Canadian Communities Today.	Farm; farming; farm life.	Prepare and read brochures; share experiences.
Unit Six				
26. Make a Calendar	Science	Observe and describe characteristics of plants.	Agricultural plants; seasonal change.	Share ideas in conversations; write interpretive inscriptions.
27. Growing Plants	Science	Observe and describe stages in growth of plants.	Germination; plant growth; crop production.	Write charts; report observations.
28. Take a Plants Quiz	Science	Classify plants in various ways.	Food processing; agricultural products.	Read pictures and paragraphs; use context to predict words.
29. Plant Rhymes	Science	Describe and classify plants in various ways.	Agricultural plants.	Read verses; use context to predict rhyming words.
30. Bake Sale	Science	Observe matter undergoing changes.	Plant products; food processing.	Read recipes; follow instructions; write charts; share experiences in conversations.

UNIT 4 - ANIMAL GROUPS IN AGRICULTURE

INTRODUCTION

This unit focuses on particular groups of farm animals. The activities lead the children to identify various kinds of animals involved in farming and to study selected groups in some detail. Our intent is that children come to recognize the importance of animals to agriculture. The activities help the children see that some farm animals are workers while some are pets or sources of agricultural products. In addition the activities help the children increase their appreciation of the relationships between farmers and the animals they care for. The notion of a farmer as a caregiver is basic to the unit, as is the notion of interdependence between a farmer and his animals.

The following general questions reflect the focus of this unit:

1. What are the special characteristics of selected farm animals?
2. What are these animals valued for?
3. How are they cared for?

OBJECTIVES

1. To identify characteristics of some of the types of animals found on Alberta farms.
2. To recognize the different roles played by different animals on a farm - workers, pets, stock.
3. To recognize the importance of the farmer's role as caregiver.
4. To identify the stages in the production of selected animal products.



Activity 16

MAKING MOBILES

STUDY QUESTION:

Which farm animal will make the best mobile for your house or classroom?

THE ACTIVITY:

In this activity children sew animal shapes on cardboard frames and cut them out for mobiles.

SUBJECT AREA:

Language Arts

CURRICULUM CONCEPTS:

LANGUAGE ARTS

Communicate orally using various forms: directions, conversations, reports.

Use appropriate forms of written language: paragraphs.

AGRICULTURE CONCEPTS:

Farm animals.

PURPOSE

To introduce the concept of the different types of animals and various shapes of the animals.

To give the children the opportunity to further develop their language skills - and communication while learning about animals.

MATERIALS REQUIRED:

Dot patterns for sewing animals onto cardboard. Supplied in this activity.

Needles, thread of various colors and textures, scissors, string.

TIME REQUIRED:

2 to 3 class periods.

PROCEDURE

Part One

Introduction

Bring in a completed mobile with each animal in it to give the children an idea of what the animals look like and heighten their interest in the activity.

Part Two

Preparation

Using the patterns provided, make sewing forms of cardboard. Let each child select an animal; make multiple forms for each child according to his or her design for a mobile. Glue copies of the patterns onto light cardboard for sewing.

Part Three

Conversing

Have each child make an animal mobile using cutouts of their sewn animal forms. Let the children who have selected the same animal work together, to both help each other and converse with each other about the features of their animal. Some children may want to work together on a single mobile.

Part Four

Conclusion

Display the mobiles and have the children tell about them.

FOR DISCUSSION

Why did you pick the animal that you used in the mobile?

What shape is your animal?

What kind of covering does your animal usually have (hair/feathers)?

Why does your mobile balance? Why not?

What characteristics does your animal have?

EVALUATION STRATEGIES Have the children write a short poem or draw a picture about a day in the life of their animal.

Have the children write down and hand in what they are going to say about their mobile.

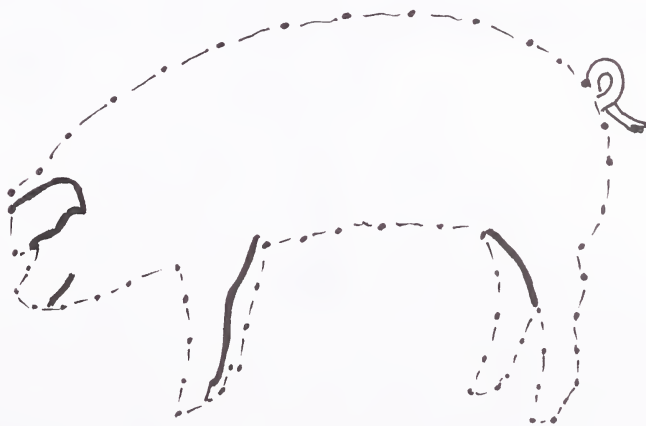
Use mobiles as a method of evaluation.

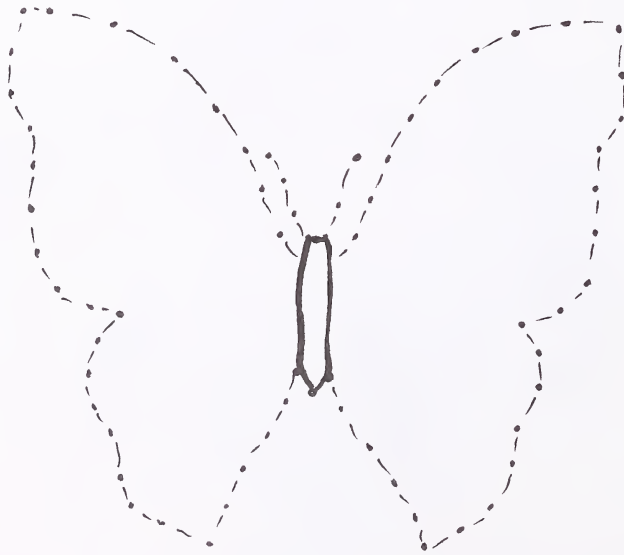
RELATED ACTIVITIES

1. In their groups, have the children research the characteristics and care of their particular animals. Encourage them to share their findings when telling about their mobiles.
2. Have children look for pictures of their animal and do a collage.









Activity 17



ANIMAL WORKERS



STUDY QUESTION:

Do you know any dogs that are workers?

THE ACTIVITY:

In this activity the children identify and explore the regular tasks of a sheep dog.

SUBJECT AREA:

Science

CURRICULUM CONCEPTS:

LANGUAGE ARTS

Read a variety of materials: lists.

SCIENCE

Plants and Animals: describe and classify animals in various ways.

AGRICULTURE CONCEPTS:

Animal workers.

PURPOSE

To introduce children to the concept of animals doing work on the farm.

To give children the opportunity to further develop their language skills while they are learning about sheep dogs.

MATERIALS REQUIRED:

Information sheet on the work of a sheep dog. Supplied in this activity.

Photographs of sheep dogs in action. Supplied in this activity.

TIME REQUIRED:

2 class periods.



PROCEDURE

Part One

Introduction

To introduce the ideas of a dog as a worker ask the children who have pets to tell what jobs their pets do. Some dogs, for example, are seen as watchdogs, not just pets; some are used as police dogs or seeing-eye dogs; some also are viewed as companions. Relate this discussion to the historical use of animals such as horses and oxen for transportation, and construction work (hauling loads, etc.) as well as farming.

Discussion

Part Two

Reading

Read the sheet about the sheep dog's duties, discussing each item briefly. Use the pictures to help the children visualize the dog in action.

Part Three

Making a Collage

Have the children work in groups to illustrate the various jobs of the sheep dog. Use the illustrations for a collage and agree on a title for it.

Part Four

Conclusion

Have each group briefly comment on their part of the collage. Highlight the importance of animals to a farmer - the help he gets in return for taking very good care of these animals.

FOR DISCUSSION

How does the farmer control the dog?

What breed is usually used as a sheep dog?

What duties does your animal have around the house?

Are there other animals on the farm that do work for the farmer?

Why are these animals so important on certain farms?



EVALUATION STRATEGIES Have children outline what work a pet would have at their house.

Have the children write a story about a day in the life of a sheep dog.

RELATED ACTIVITIES

1. Write individual stories that involve other animals who work for their masters or write an outline for a day in the life of another animal.
2. Read stories about farm pets or animal workers - e.g. Only One Wolf, by James Herriot. London: Pan books Ltd., 1986.



Bliss is a working mother.



A Day in the Life of a Sheep Dog

Sheep dogs run up to thirty miles in the course of a day. They are loyal and tireless workers, seldom becoming bored with their jobs. Here are some of the tasks of a sheep dog.

1. Herd sheep from pen to pen.
2. Takes sheep from pens out to pasture.
3. Follows the farmer during feeding and helps control sheep at the feeders, to prevent chaff from getting into the fleece of the sheep.
4. Guards gates when they are open for moving machinery, to prevent sheep from escaping.
5. Brings sheep up the chutes for medical treatment or sorting.
6. Rounds up sheep who have run away from home to graze on a neighbour's grass.
7. Brings sheep in from pastures unassisted.
8. Is a loving companion to a farmer.



WORKING DOG TRIALS



Creed moves in. Can he get the sheep into the pen?



Jeff did a good job - now he can leave the course with his master.



Both horses and dogs help ranchers with their cattle.



Activity 18



A SPECIAL BIRTHDAY PARTY

STUDY QUESTION:

What is a newborn animal like?

THE ACTIVITY:

In this activity the children arrange sentences to match pictures and to make a story about an event that is somewhat unique to farm life.

SUBJECT AREA:

Science

CURRICULUM CONCEPTS:

LANGUAGE ARTS

Read a variety of materials: pictures, stories.

Use appropriate forms of written language: story ending.

SCIENCE

Plants and animals: develop a respect for living things.

AGRICULTURE CONCEPTS:

Farmer as a caretaker.

PURPOSE

To introduce the children to the concept of the farmer caring for the animals and what a special event it is when a new baby is born.

To give the children the opportunity to further their language skills while learning about baby animals.

MATERIALS REQUIRED:

Series of drawings about a little girl's birthday party. Supplied in this activity.

Scrambled list of sentences to accompany the drawings. Supplied in this activity.

Teacher's information sheet. Supplied in this activity.

TIME REQUIRED:

2 class periods.



PROCEDURE

Part One

Introduction

Have children share experiences they may have had with baby animals or with pets having babies.

Part Two

Reading Pictures

As a class, look at the series of drawings about a little girl's birthday party at which a calf is born. Through discussion, develop an oral script for the story.

Part Three

Rearranging the Story Identifying Sequence Predicting Outcomes

Distribute copies of the sentences that accompany the drawings. Have the children read them individually, then work in pairs to arrange the sentences and write individual endings for the story.

Part Four

Conclusion

Have the children share their responses to the story noting that farm people watch their animals closely and often help when baby animals are being born. Have the children pick a name for the "birthday" calf.

FOR DISCUSSION

How does the farmer care for the new born babies on his farm?

How does the farmer care for the mothers?

How do birds differ from other animals in the way they have the babies?

Why are farm mammal babies born ready to walk, run, etc.?

What do the baby animals eat?



EVALUATION STRATEGIES Have children draw a picture of a baby animal.

Have children write their own story about a birth of a baby animal.

Use the task sheet as a method of evaluation.

RELATED ACTIVITIES

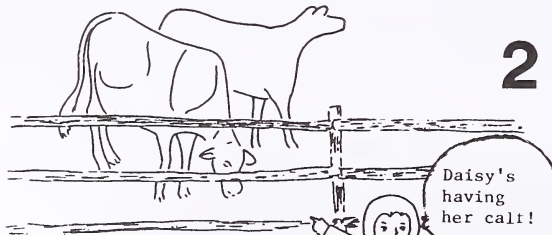
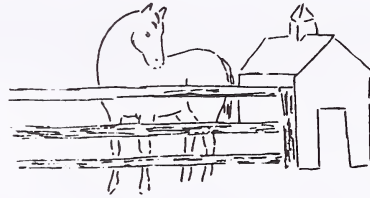
1. Have the children write stories about animal babies based on their experiences with their own pets or classroom pets.
2. Read books about animal babies.
3. Act out the story.

A SPECIAL BIRTHDAY PARTY FOR CATHERINE

To The Teacher: For some children who live on farms, it is not uncommon to witness the birth of animal babies. In fact sometimes children are involved directly when their parents help an animal during a birth. The experience allows children to appreciate the kind of bonding that is characteristic of some animal families - as in one child's whispered exclamation to his mother as he watched a sheep cleaning her new lamb: "She loves it, Mom!"

The series of drawings and the narrative suggested in the accompanying sentences are based on a real event. We hope that in this activity the children can share some of the awe that a farm child might experience at a birthing event.

A Special Birthday Party For Catherine

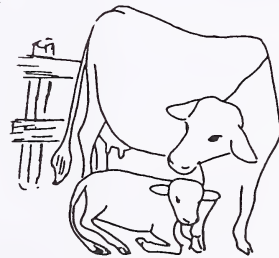


Daisy's
having
her calf!

3



Quiet!
Don't
scare
her!



5



6

STUDENT RESOURCE

A Special Birthday Party



Decide which sentence explains each drawing and number the sentences from 1 to 6. Write an ending for the story. Sentences 1 and 6, are numbered for you.

_____ On the way to the pasture the children pass the corral where cows are kept. Catherine notices that a calf is being born.

1 _____ Catherine is having a party for her ninth birthday.

_____ When mother comes back to the corral to see the baby calf, she sees Daisy and her new calf.

_____ Catherine's friends want to see her horse, so they all start off for the pasture.

_____ Catherine's friends want to go over to the corral to see the baby calf. Billy reminds them to be gentle and quiet then runs off to get Catherine's mother.

6 _____ Catherine blows out her birthday candles. _____

Activity 19



HOW WE MAKE CHEESE

STUDY QUESTION:

What is your favourite cheese and where is it made?

THE ACTIVITY:

In this activity children visit a dairy or cheese company or interview a guest from one.

NOTE:

If a dairy is not accessible, do this activity in relation to a different farm animal, e.g. How we make wool or honey; how eggs are marketed.

SUBJECT AREA:

Science

CURRICULUM CONCEPTS:

LANGUAGE ARTS

Communicate orally: conversations, interviews.

Use appropriate forms of written language: questions, letters, simple charts.

SCIENCE

Order and time: observe changes that occur in a regular pattern.

AGRICULTURE CONCEPTS:

Food processing: dairying.

PURPOSE

To introduce children to the method used to make cheese.

To give children the opportunity to further develop their language skills while they are learning about cheese.

MATERIALS REQUIRED:

Fact sheet on cheese making. Supplied in this activity.

Pictures on dairying. Supplied in this activity.

TIME REQUIRED:

3 to 4 class periods.



PROCEDURE

Part One

Introduction

Discuss with students the various ways that they encounter milk and milk products. Have the children help write a letter to arrange a visit to a cheese factory, dairy or dairy farm. Alternatively, invite a representative to visit your class to talk about the processing of milk.

Part Two

Viewing

In preparation for the visit, study the pictures of dairying and list some of the questions the children want to ask about the way cows are milked by machine, how the milk gets from the farm to a dairy, or how certain dairy products such as cheese are made.

Writing Questions

Part Three

Interviewing

Conduct the visit. Have the children ask their questions about the Industry. If possible, obtain samples for follow-up class. Have students write short news columns based on their interview notes. Compile the columns into a class cheese journal.

Follow-up

NOTE:

You can also make a list of the topics and give two children one topic to write on as journalists for the paper.

Part Four

Conclusion

If cheese samples have been obtained, have a testing party where children can compare flavors and choose their favorite cheese. Review the visit, emphasizing that mechanization allows a farmer to specialize in dairying and to work with a larger herd than he could otherwise.

FOR DISCUSSION

What are the basic ingredients in cheese?

How do the different kinds of cheeses get made?

How must we store cheese?

Does cheese give us more calcium than milk? Why?

How has mechanization and specialization changed dairying and cheese making?

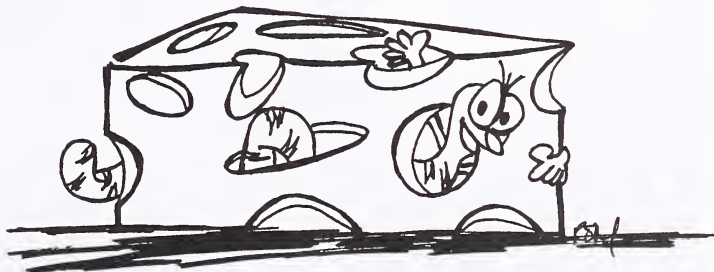
EVALUATION STRATEGIES

Have children rate the cheese samples and say which is their favorite.

Use the cheese journal column as a method of evaluation.

RELATED ACTIVITIES

1. Have the children explore their impressions and learnings in their journals. On the basis of these reflections, have them collaborate on a thank-you letter to mail.
2. Make a flow chart depicting the processing of milk into cheese.
3. Have a listing competition: How many dairy products can you list in a minute? Have the children group the items and prepare posters to advertise selected dairy products and their health values. Post them in the school for a week.





Cheese Making

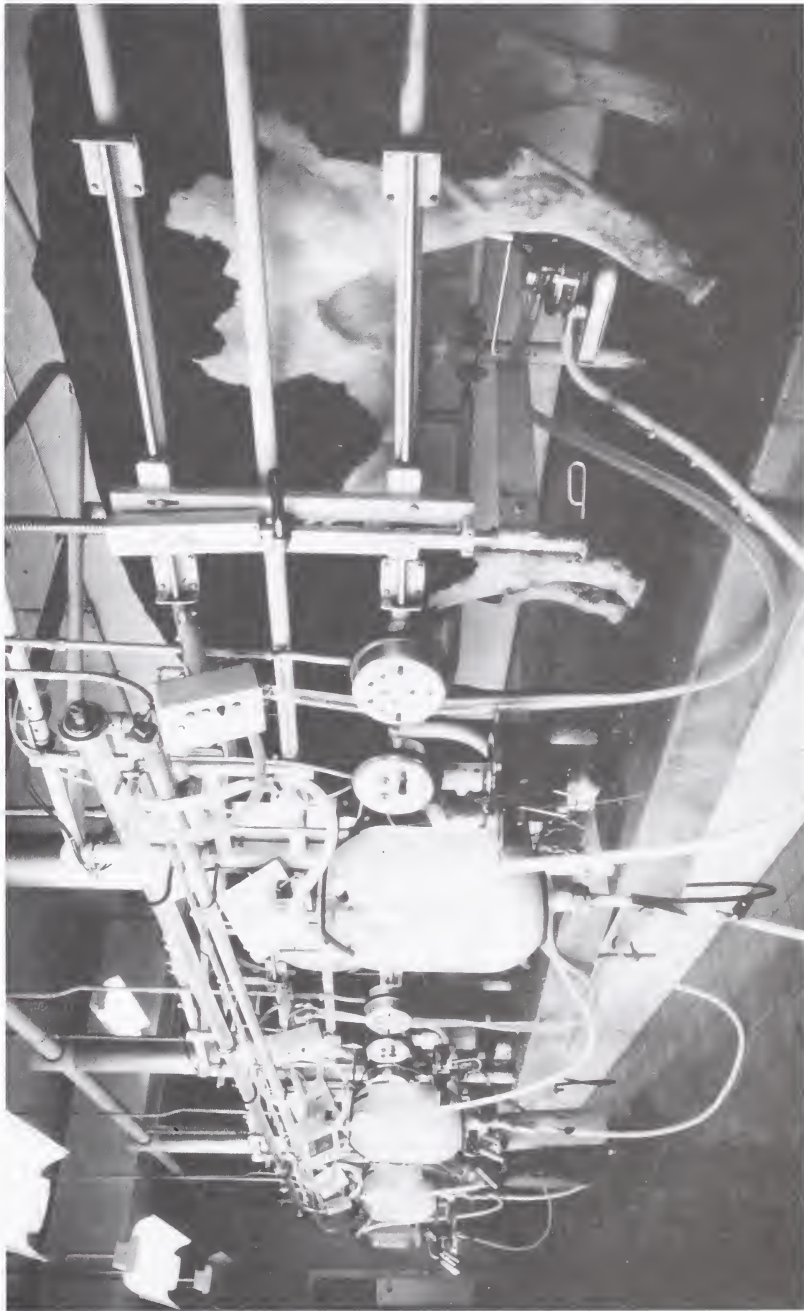


When milk is cooked together with rennet, it coagulates. Whey is expelled leaving “curds” and “whey”. Here the curds are being piled, allowing whey to escape.

The piled curd is allowed to mat. It is cut into loaflike portions and turned every so often. The curd becomes smooth and silky. This chemical process is called “cheddaring” after the village of Cheddar, England, where cheese-making was going on as early as the 1700’s.



Cheese making began in Canada in 1864, when a cheese factory opened near Ingersoll, Ontario. Since then over 1500 factories have sprung up across Canada. Alberta cheese factories make over 20 kinds of cheeses.



Dairy cattle are milked in a modern milking parlour. The milk goes directly from the cows through the pipeline to the storage tank in an adjoining room. Some of the milk is shipped to a cheese factory.

Activity 20

CROSSWORD PUZZLE: FARM ANIMALS



STUDY QUESTION:

How many words do you know about farm animals?

THE ACTIVITY:

In this activity children do a crossword puzzle related to farm animals.

SUBJECT AREA:

Language Arts

CURRICULUM CONCEPTS:

LANGUAGE ARTS

Develop vocabulary.

AGRICULTURE CONCEPTS:

Farming: farm animals.

PURPOSE

To encourage the children to connect words with the animals they refer to.

To give children the opportunity to further develop their language skills while learning about farm animals.

MATERIALS REQUIRED:

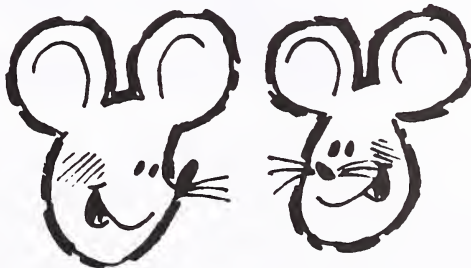
Glossary. Supplied in this activity.

Crossword puzzle. Supplied in this activity.

The poem about farm animals. Supplied in this activity.

TIME REQUIRED:

1 to 2 class periods.



PROCEDURE

Part One

Introduction

Read the poem "The Farmer's Helper" to the children to introduce the vocabulary and heighten their interest in the activity.

Part Two

Using a Glossary

A "Defining Bee"

Make copies of the glossary for the children to refer to. Demonstrate and have them practice its use on a number of the words related to farm animals and care of animals. To review additional words split the class into two teams and have a "defining bee" analogous to an old-fashioned spelling bee; for each word you pick out, the first person to find it in the glossary and define it earns a point for his or her team.

Part Three

Prediciting Words

Make the puzzle available to the children, perhaps at an activity centre where they can work on it individually or with classmates. Encourage them to use their glossaries to check their guesses.

Part Four

Conclusion

At a specified time review the words by brainstorming and categorizing words children associate with farm animals. Discuss any questions that may arise about the words.

FOR DISCUSSION

What are the three names used for baby horses? (foal/colt/filly)

What is the opposite of an animal worker? (pet)

What is the difference between an animal that is a pet and one that is a worker?

Do all cats catch mice?

How does a bee help the farmer?

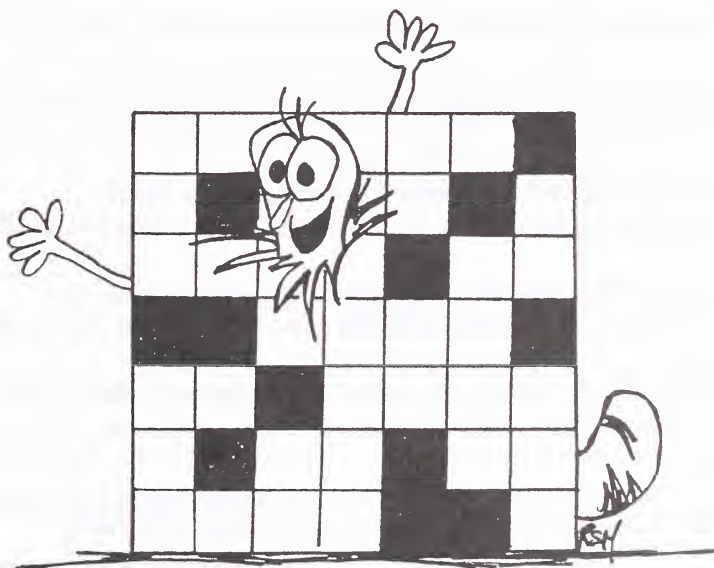
EVALUATION STRATEGIES Have the children write a story about their favorite animal.

Use the puzzle as a method of evaluation.

Have children write a short story on one of the animals in the poem.

RELATED ACTIVITIES

1. Choose riddles about animals, using the information in the puzzle.
2. Do jigsaw puzzles on farm animals.



TEACHER RESOURCE



THE FARMER'S HELPERS

Some farm animals are covered with lots of fluffy feathers,
while others have hides that can be made into leathers.

Some farm animals are really quite cuddly and small,
while others truly cannot help being big and tall.

Though, whether the animals are feathered or hairy, big or
small,
they all help the farmer in Winter, Spring, Summer and Fall.

The stock dog may not be big, but is very intelligent by nature,
he helps the farmer when he is chasing cows round the pasture.

The cow may not be as smart, but she is just as handy,
she gives the farmer lots of food, which is really fine and dandy.

The bee flies very diligently around in the big fields of hay,
making honey and helping plants grow until the season's last day.

The chicken may seem to you to be no help in this whole deal,
but this animal provides the farmer with a good hardy meal.

The horse, being strong, can carry the farmer over many-a-mile,
so he can save up his energy for other things all the while.

As you can see, all the animals give the farmer a hand,
helping him out whether he is working livestock or land.

author - C.G. Bibby

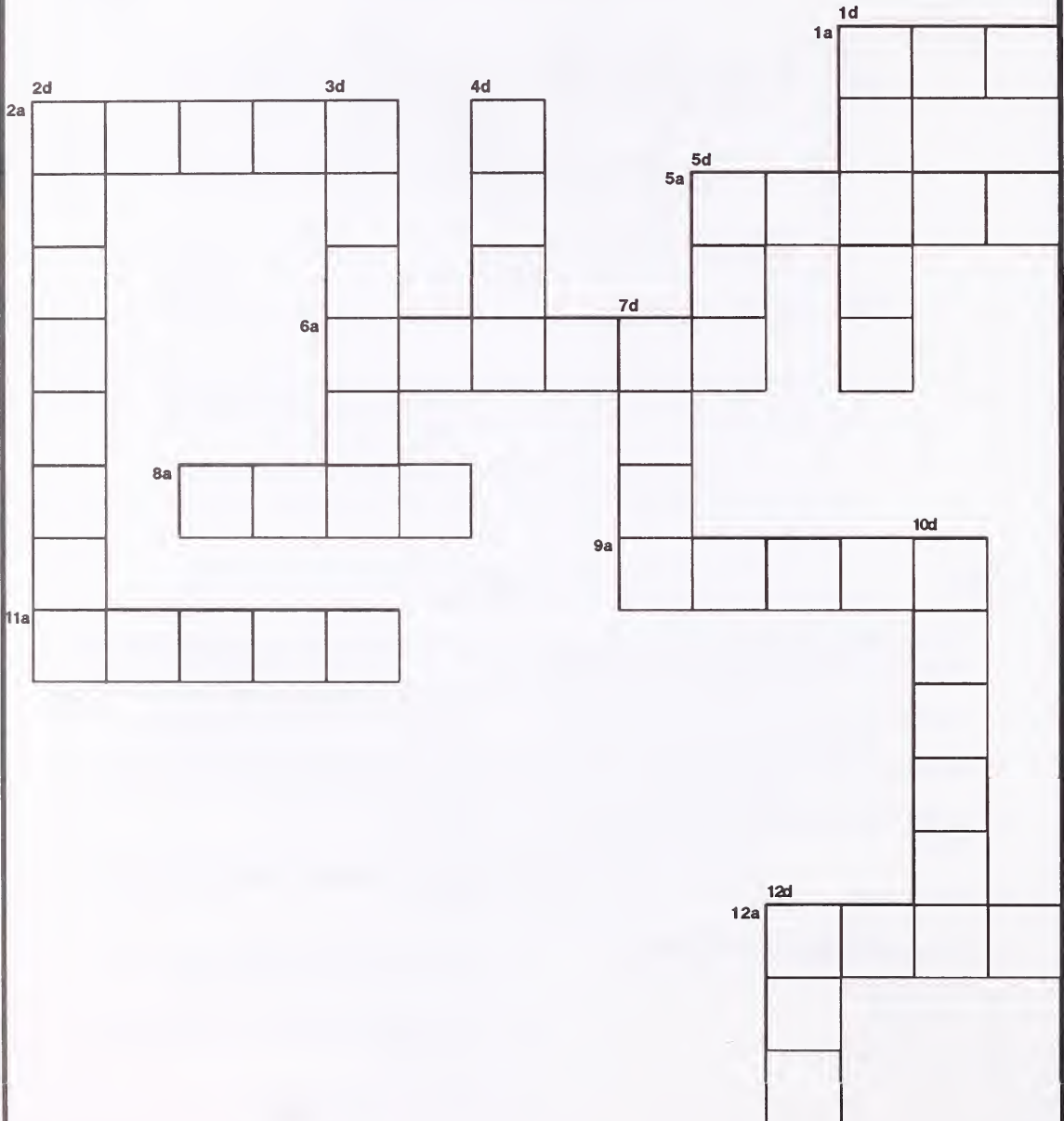
CROSSWORD PUZZLE: FARM ANIMALS

[illegible]

Across

- | | |
|--|---|
| 1. These buildings provide shelter for animals; these are the buildings where cows are milked. | 1. It makes honey. It's name rhymes with "see". |
| 2. An animal used by the farmer to control sheep. | 2. It is used as bedding for some animals; it is left when seeds are threshed from grain. |
| 3. An animal that helps the farmer with his work. | 5. An animal that is used mainly for riding. |
| 4. A baby male horse whose mane rhymes with "bolt". | 6. Baby cat. |
| 5. She lays eggs. | 8. A group of animals. This sounds just like "herd". |
| 7. Chicks and goslings hatch out of theses. | 9. A smaller animal that gives us wool. This animal's name rhymes with "peep". |
| 10. A baby pig. | 11. A long-necked water bird. It's name rhymes with "loose". |
| 12. She gives milk. | 12. These animals catch mice. |

CROSSWORD PUZZLE: FARM ANIMALS



STUDENT RESOURCE

CROSSWORD PUZZLE: FARM ANIMALS



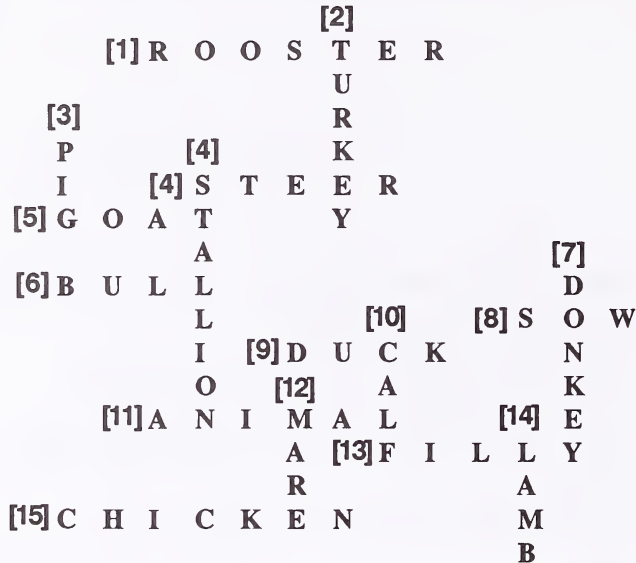
Down

1. These buildings provide shelter for animals; these are the buildings where cows are milked.
2. An animal used by the farmer to control sheep.
3. An animal that helps the farmer with his work.
4. A baby male horse whose mane rhymes with "bolt".
5. She lays eggs.
7. Chicks and goslings hatch out of theses.
10. A baby pig.
12. She gives milk.

Across

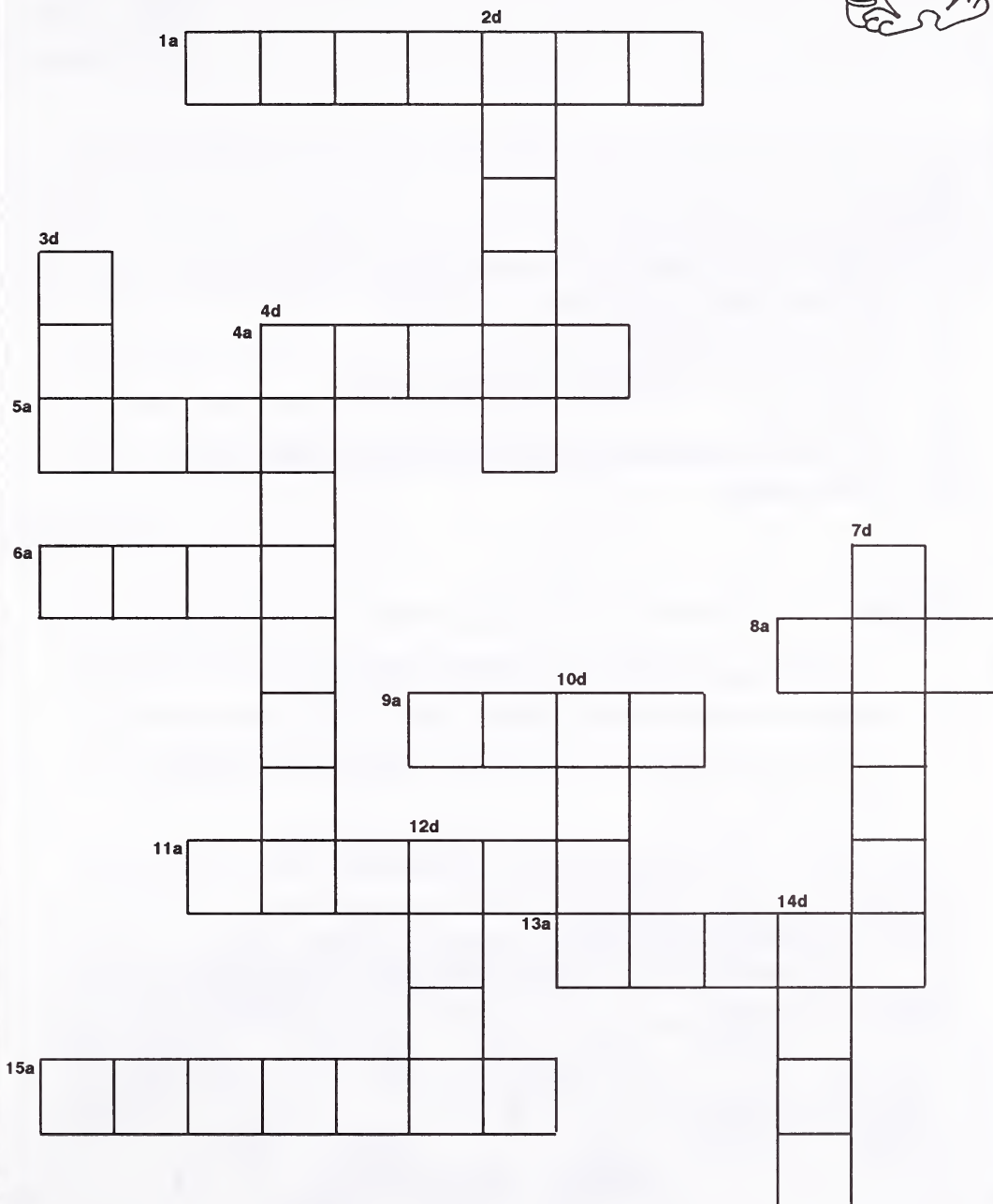
1. It makes honey. It's name rhymes with "see".
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12. These animals catch mice.

CROSSWORD PUZZLE: FARM ANIMALS



- 20.8 -

CROSSWORD PUZZLE: FARM ANIMALS



STUDENT RESOURCE

CROSSWORD PUZZLE: FARM ANIMALS



Down

2. A bird usually eaten on Thanksgiving and Christmas.
3. An animal with a snout and a curly tail.
4. An adult male horse.
7. A long-eared animal that is like the horse.
10. A baby cow.
12. A female adult horse whose name rhymes with care.
14. A baby sheep.

Across

1. An adult male chicken that wakes us at dawn.
4. A male cow raised for its meat.
5. A small animal used for its milk and meat whose name rhymes with "boat".
6. An adult male cow. It's name rhymes with "full".
8. A female adult pig. It's name rhymes with "wow".
9. An animal with webbed feet that loves the water.
11. A living being that is able to move on its own.
13. A baby female horse. Her name rhymes with "Billy".
15. Kentucky Fried _____.

UNIT 5 - FARM LIFE: RURAL AND URBAN SETTINGS

INTRODUCTION

This unit offers children opportunities to examine rural settings for farm life and the roles and interdependences among family units and family members. In the activities of the unit children will examine use of space in rural and urban areas and will have opportunities to reflect on the tasks and relationships of family members. The intent is that children begin to recognize both contrasts and relationships between life in rural and in urban areas. The unit also introduces the idea that farming can occur in a city, where agricultural goods such as vegetables are produced commercially and that farmers may live and sometimes work in cities. The following questions suggest a frame of reference for the activities in this unit:

1. What are some similarities and differences between life in rural and urban areas?
2. How does space affect the lives of people in rural and urban areas?
3. What are some of the specific roles played by members of farm families?

OBJECTIVES

1. To recognize the extent to which agriculture is apparent in any community.
2. To compare the density of population in selected rural and neighboring urban areas.
3. To appreciate the different effects of space on the living patterns of country and city people.
4. To recognize the variety of roles played by farm people both on and off their farms.



Activity 21



SQUEEZING TOGETHER - SPREADING OUT

STUDY QUESTION:

Do you have lots of space for working and playing?

THE ACTIVITY:

In this activity children define a section of farmland in terms of a city block.

NOTE:

Metric measures are not used in this activity because the focus is on roadways which still mark off miles and acres.

SUBJECT AREA:

Science
Social Studies

CURRICULUM CONCEPTS:

LANGUAGE ARTS

Communicate orally: discussions; conversations.

SCIENCE

Environment: infer the consequences of man-made changes in the environment.

SOCIAL STUDIES

Planning neighborhoods: exploring my own neighborhood; Canadian communities today.

AGRICULTURE CONCEPTS:

Sections (of land).

PURPOSE

To introduce the children to the different amount of space in the country and in the city.

To give children the opportunity to further develop their language skills while learning about population density.

MATERIALS REQUIRED:

Aerial views of a city residential area and of a farmstead and surrounding land. Supplied in this activity.

Chart showing sections of land and crossroads; broken lines to show a city block. Supplied in this activity.

TIME REQUIRED:

1 to 2 class periods.

- 21.1 -



PROCEDURE

Part One

Introduction

Introduce the notion of density of population by having the children each take one balloon out of a small box. Have the children blow up their balloons and note how much more space they take up.

Part Two

Comparing

Relate the comparison to the contrast in population density in rural and urban areas. Refer to the chart which shows one city block relative to a couple of sections of land. Have an enlarged chart on the board. Estimate the number of people living in a block in a residential area of a town or city and have the children put that many dots into the little square on the chart.

Part Three

Conclusion

Briefly discuss the contrast, reflecting on the greater number of people living in a town or city block and in a similar amount of space in the country. Briefly also discuss the influence of this difference on the people living in each kind of place.

FOR DISCUSSION

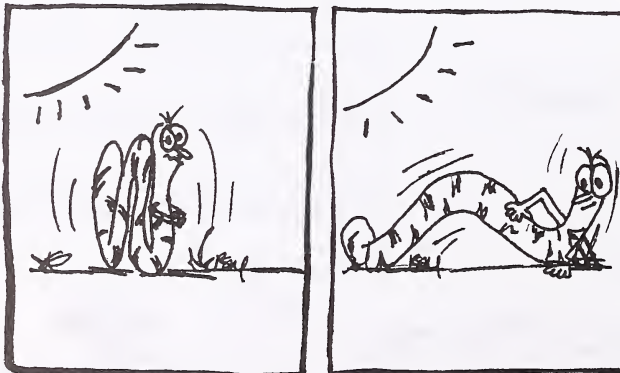
How big is a section?

How would population density change the life of the people?

How many animals do you think you will find in the the city in comparison to the country?

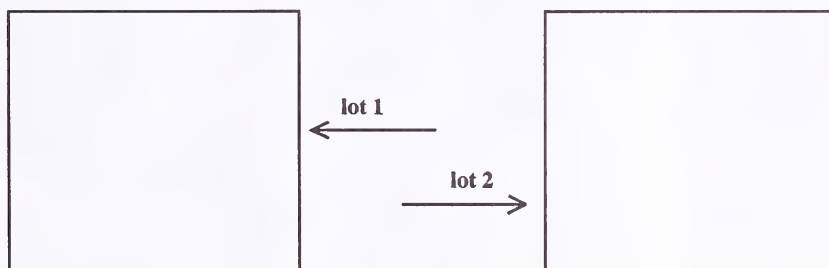
What are the advantages to living in the city?

What are the advantages to living in the country?



EVALUATION STRATEGIES Have the children write up a short story that shows how population density influences the lives of the people.

- RELATED ACTIVITIES**
1. To reinforce the contrast in space between country and city residential areas, have the children estimate the distances travelled for a country child and a city child - e.g. going to school and meeting friends.
 2. If the school is in a town or city take a walk around one block in a residential area. Count the number of buildings on the block and note the different kinds of buildings. Estimate the number of people living on the block. After the walk make a diagram of two separate lots, one with a single-family dwelling on it and one with an apartment on it. Show the number of people on each lot.



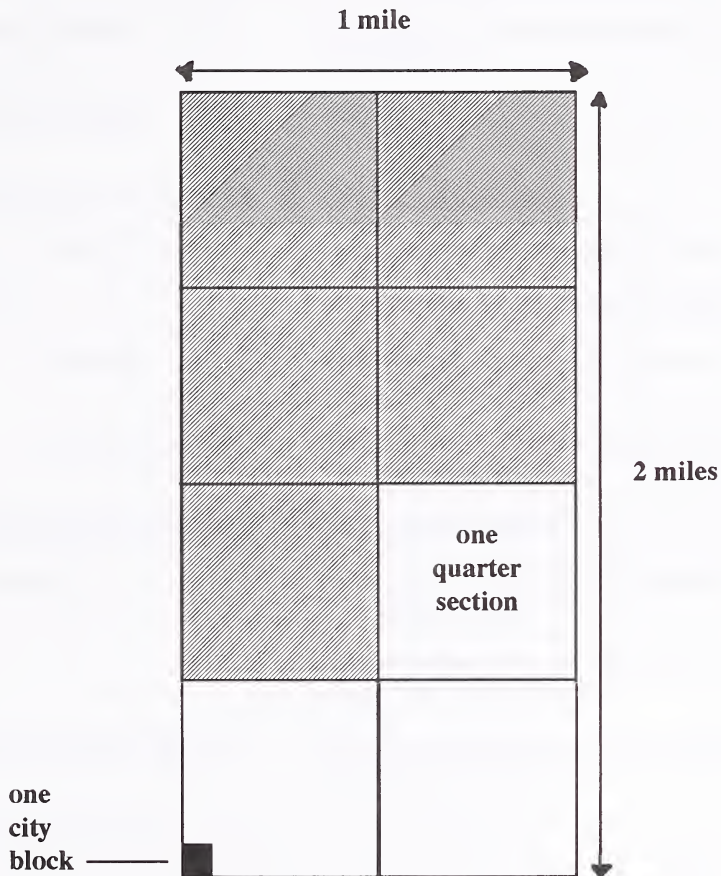
Use the diagram to define density of population as the number of people per unit of space and relate this notion to rural and urban living.

URBAN AND RURAL LIVING: BIRD'S EYE VIEW





Density of Population



In rural Alberta, crossroads occur every 2 miles north and south, every mile east and west.

The average size of farms in Alberta is $1\frac{1}{4}$ sections, illustrated by the shaded area in this diagram.

Activity 22



MAPPING YOUR NEIGHBOURHOOD

STUDY QUESTION:

How does your community look from the air? What landmarks would you see that relate to agriculture?

THE ACTIVITY:

In this activity children identify agricultural landmarks in their community.

SUBJECT AREA:

Science
Social Studies

CURRICULUM CONCEPTS:

LANGUAGE ARTS

Associate visual and auditory information: recall details.

Read a variety of materials: pictures, lists.

SCIENCE

Environment: identify various parts of an environment and infer their interdependence.

SOCIAL STUDIES

Planning neighborhoods and local communities: exploring my own neighborhood.

AGRICULTURE CONCEPTS:

Agricultural landmarks.

PURPOSE

To introduce children to the important agricultural sites in their neighbourhood.

To give children the opportunity to further develop their language skills while they learn.

MATERIALS REQUIRED:

Aerial photographs of city and country residential areas (see Activity 21).

TIME REQUIRED:

2 class periods.



PROCEDURE

Part One

Preparation

Identify a small section of your community where your class can go for a walk and see a number of commercial buildings or other landmarks. Select an area of several blocks.

Part Two

Introduction

Have students list as many kinds of buildings found in their community as they can.

Part Three

Orientation

As a class examine the aerial photographs of Alberta communities. Then ask the children to imagine how their school and its immediate neighbourhood looks from the air.

Part Four

Observing

Take a walk around the section of your community that you have selected, to identify major landmarks and their spatial relationships to each other. Note which ones have some connection with agriculture - e.g. a bakery, a railway track, a vet's office, an elevator, a bank, a dairy plant, a foodstore, a lawn.

Part Five

Conclusion

After the walk have the children recall the landmarks they saw. List them on the board. Mark those having some connection with agriculture and briefly discuss their significance to agriculture.

FOR DISCUSSION

What landmarks did you see?

How do they help our community?

How often have you been to these places? Why?

Which of these places play a part in agriculture?

Who ran these agricultural places?

EVALUATION STRATEGIES

Have children write a short story on one of the landmarks seen using the information compiled as a class.

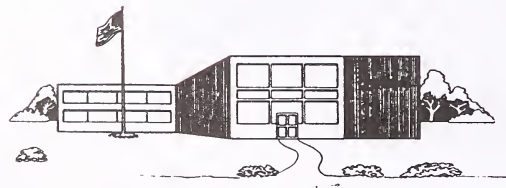
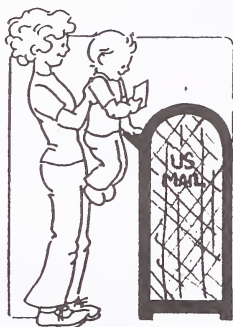
RELATED ACTIVITIES

1. Have the children draw "aerial photographs" of the area covered in their walk on the Student Resource Sheet. Highlight in green the agricultural landmarks seen. On the "aerial photos" compare the small area taken up by these landmarks with the relatively large areas of farmland surrounding a town.
2. Have children write a story about one of the buildings they saw that is related to agriculture.



STUDENT RESOURCE

Can You Name These Things?



Activity 23



FARMER FOR A DAY

STUDY QUESTION:

If I follow a farmer around all day what will I see and do?

THE ACTIVITY:

In this activity the children prepare overhead transparencies to illustrate farm settings and activities

SUBJECT AREA:

Social Studies

CURRICULUM CONCEPTS:

LANGUAGE ARTS

Read a variety of materials: reports.

Use appropriate forms of written language: illustrations.

Communicate orally using appropriate language: explanation or commentary.

SOCIAL STUDIES

Planning neighbourhoods and local communities: Canadian communities today.

AGRICULTURE CONCEPTS:

Farm: farming; farmer.

PURPOSE

To introduce the children to the everyday things that happen on the farm.

To give children the opportunity to further develop their language skills while they learn about everyday life on the farm.

MATERIALS REQUIRED:

Information sheets listing typical daily activities of various types of farmers. Supplied in this activity.

TIME REQUIRED:

2 to 3 class periods.



PROCEDURE

Part One

Introduction

Introduce this activity by making a composite timeline suggesting the kinds of activities children do each school day. Raise a question about what a farmer may be doing during the same day.

Part Two

Reading

Read together the data sheets about life on various types of farms. Have each child select an activity to illustrate. Group the children in some way - e.g. types of farms.

Part Three

Drawing Writing

Ask each group to prepare individual illustrations with text, one by each child. Have each group plan a joint presentation or commentary that ties the separate scenes into a related series. Encourage the children to mention whether the activities are seasonal or occur every day of the year.

Part Four

Conclusion

Share the presentation. Briefly discuss the show, allowing children to respond to the kind of life it depicts. Note that farm work changes with the seasons and encourage the children to reflect on these changes.

FOR DISCUSSION

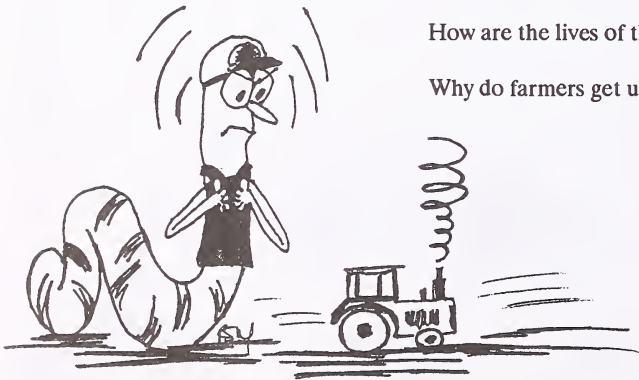
What special things happen on the various farms?

How do most of the children on the farm get to and from school?

Do the children help out on the farm? How?

How are the lives of the people affected by what they do for a living?

Why do farmers get up so early?



EVALUATION STRATEGIES Have children draw a picture that shows a normal activity that they do during their day.

Use the group illustrations and text as a method of evaluation.

RELATED ACTIVITIES

1. If the children have parents working away from home, which is possible in a rural setting but is particularly likely in a city class, have them do timelines and illustrations of their parents daily activities and compare these with the farm scenes. Have the children interview their parents if necessary.



A hog farmer checks his litter of piglets.



Chicken producers buy their chicks from a hatchery.

A dairy farmer empties the milking machine.



A Day on Our Hog Farm

Family members: Harvey (father)
Margaret (mother)
Christy (10 years old, Gr. 5)
Maria (7 years old, Gr. 2)
Colin (4 years old, preschool)

Our farm is a three family mixed farming operation. My husband farms with his father Frank, and his brother, Edward. Hence the family farm bank account is labelled: F. J. Rice and Sons.

7 a.m.

The alarm goes off for our family at 7:00 a.m. at this time of year. After dressing and making their bed, Maria and Christy take turns practising piano in the morning. The other person feeds the fish and helps Mom to make the lunches - breakfast is at 7:30.

8:00

The school bus arrives at about 2 minutes after 8. We usually have the radio on in the morning (tuned to CHQT in Edmonton) (if the weather is questionable, we listen to either CKRD or CKGY, Red Deer, for possible school closures) and when the eight o'clock news starts, it's time that Maria and Christy must be out the door for the bus. The school is 14 miles from our place in Lacombe town.

Harvey has gone out to do the chores before the girls leave for school, because we are taking a load of pigs into Red Deer to ship. Yesterday Edward and Harvey weighed the pigs and tattooed the market weight ones. This morning, these have to be loaded into the truck, after the pigs have all been fed. The truck holds approximately 35 market weight pigs, some come from our barn and some from Edward's.

When doing chores, Harvey also feeds 40 calves that were weaned from their mothers 2 weeks ago. He feeds them chop and hay. He also throws a couple of bales over the fence for our 4 horses.

Meanwhile, in the house, Colin and his Mom are hurrying to get things done so that they can be ready to go to Red Deer too. They clear off the table, make the beds, and have a race getting their clothes on. Colin wins. Then they feed the cats and their 2 outside dogs and put sunflower seed in the birdfeeder. Brandy, the beagle, is fed in the house.

It is 25 miles to Red Deer to take the pigs. They take a load about once every 2 weeks. When it is spring and fall, whoever takes the pigs must hurry back with the truck so that it can be used to haul the seed grain from the combine.

After getting the pigs unloaded, we go the UFA for some lumber and salt.

While we are taking the pigs, Edward is feeding hay and bedding our 40 range cows.

On the way home from Red Deer, the bus stops to pay some bills and do some banking and take some deer meat to be made into sausage at the butchers. Margie does some sewing. Colin is busy playing with his trucks and tractors, Harvey joins 2 neighbours to hunt for deer for the afternoon.

4:15 p.m.

It's nice to have the girls home from school, the bus stops at about 4:15. After a snack they tackle homework and practising. Christy is completing several projects for her 4-H sewing club; she also works on them.

5:00

Harvey starts chores about 5:00 so that he is finished before dark.

Our son, Ryan, died 14 months ago. But, when he was alive and had a 4-H calf, he fed his calf every night after school.

Harvey would feed it in the morning so that Ryan didn't go to school with that "barny smell". Christy just started 4-H this year. She didn't want a calf the first year but thinks she might next year.

Before bedtime there are stories, songs and prayers. Colin's bedtime is 7:45, Maria's about 8:00 and Christy's about 8:15.

Harvey

- president of the local hall society
- member of the church board in Lacombe
- member of UFA advisory board
- member of Unifarm

Margaret

- attends community playschool once a week with Colin
- leader of the 4-H sewing club
- sings in the church choir
- teaches 7 piano lessons and does some private tutoring and substitute teaching to supplement their income
- monitors once a month for Unifarm

Harvey and Margaret usually end the day by about 10:30.

Submitted by:

M.R. Rice
R.R. #3
Lacombe, Alberta
782-2426

A Day on Our Poultry Farm

Owners: John and Mary Koot
their two children, both teenagers, one boy and one girl.

The Koots have a poultry operation made up of three parts: a broiler operation with about 13,000 birds; a pullet operation in which they sell hens for laying and a layer operation with about 8,500 hens. They are rather large and fairly varied poultry producers.

7:00 John gets up gets dressed and heads out to the barns to check everything to see how the feeders and ventilators are working, etc. This set of chores takes him about one hour and in the meantime the kids got up, got dressed and got ready for school and Mary has breakfast ready.

8:00 John comes back in to the house and as a family they sit down and eat breakfast. They don't eat eggs which surprise me. Basically, they are a cereal and toast family. The kids board the school bus at 8:20 a.m. so they don't have a long time to eat so they don't sit around too long in the morning shooting the breeze.

9:00 John is back out at the barns. At that time he gathers eggs and checks to make sure everything is working fine. He does any clean up and that sort of thing.

10:30 John is in for coffee. Both he and Mary sit down and have coffee together. They don't go into town for coffee. There are some farmers in the area that do that - head into town and to the cafe for coffee where they talk things over. But the Koots' family doesn't do that.

11:00 Quite often John will go into town for mail. At that time he takes in the equipment he needs to be repaired, he will pick up parts and things that they need from town for the farm and is home in a short time. They live about 5 miles from town so a trip is not a major time consumer.

11:30 We've decided to throw in a feed salesman because quite often they do have such a salesman coming around because they do use a tremendous amount of prepared feeds. So we thought that we would have a feed salesman drop by because he is around quite regularly. They know these salesmen quite well so they will stay for lunch and do a little bit of business after lunch and the feed salesman will be gone about 1:30 in the afternoon.

1:30

The afternoon is made up of various different chores that need to be done around a poultry operation. There is equipment repairs, there is bale handling. They use a lot of straw bales so they might go out and pick up a load of bales and bring them home. They might do some work around the barns, cleaning the machine shed, repair and maintain all of the buildings that they have their poultry in. All of the poultry are indoors. They might end up getting ready for a broiler shipment which would entail getting the ramps lined up, gravel hauled in if the yard is muddy and that sort of thing.

We've decided to throw in a broiler shipping. Broilers have to be loaded and shipped after dark so that in the summer it means we don't start shipping until about 11 or 11:30 at night. Because we are looking at about a 4 hour exercise to catch all those birds and put them into crates and on to trucks it is a major job. We're looking at about eight people. There are people in the district that sort of do custom work (if we want to call it that) as chicken catchers and John would normally have a crew of about eight people that would come in and catch and load chickens. It is about a four hour operation, so if they are starting at 11 o'clock at night we would wrap up this chicken catching episode by about 3 a.m. at which time everyone comes in for coffee and lunch before they head home. During the winter, of course, it gets dark a whole lot earlier and we could have a chicken catching session starting about 6 o'clock in the evening running through to 10 and at that time the crew would come in for coffee and lunch at the Koot residence.

Mary goes to town to pick up the kids. It may be worth explaining at this point that Mary is able to pick up the kids and be home by pretty close to 3:30 or 3:45. If the kids get on the bus in the afternoon they end up not getting home until 4:30 and because they have a chore of gathering the eggs again in the afternoon which takes about an hour and if they don't get home until 4:30 it puts them behind because they like to come in for supper at about 5 p.m. So Mary goes in and picks them up and by doing that she can save the two kids about an hour.

Everyone comes in for supper. Supper is their big meal of the day. They like to have it fairly early in the day because they are fairly active in the community they will be heading out either one or both or all of them for sports activities or for club involvement.

An average night wraps up about 11 by watching the news and as soon as the news is over they head for bed.

11:00

A Day on Our Dairy Farm

Note:

I found this to be very difficult to keep to a specific time of year or day. Our activities vary a lot because we grain farm as well, and have a beef feedlot.

We have 3 full time hired men, but if we had just dairy, we could probably manage with 1 hired man (a herdsman). Also our sons are getting bigger and soon will be helping more, therefore the hired help will not be necessary.

4:30 a.m.

*Time to get up for the milking.

*2 men do the milking

*we milk approximately 100 cows every day all year

*cows are fed grain during milking in the 'milking parlor', which has 5 milking machines

*the radio is always on during milking, so the cows are more relaxed.

This also gives the men a chance to hear the local weather and news.

*cows eat hay (alfalfa) and silage (barley) after milking.

7:00 a.m.

*Mom and the children rise and shine. Mom makes breakfast and packs school lunches. At this time, she also checks the daily schedule to see what is on the agenda for today. The children go outside to do their chores - feed 2 dogs, several cats, and about 20 rabbits (which they raise for pets). They make sure they are well bedded with lots of straw - especially in the winter time.

7:30 a.m.

*Milking is finished and the milk truck is here to pick up 2 days of milk.

7:45

*All the family is in for breakfast.

8:15

*The men go back out to clean the barn, feed calves, and heifers, check cows calving (this happens year round on a dairy), breed cows that are in heat.

*Cleanliness is important on a dairy, so the milking parlor is scrubbed every day.

8:25 a.m.

*Children catch the school bus. We live just three miles out of Lacombe where the children attend school.

*Mom starts tidying house, perhaps does a load or 2 of laundry

9 - 9:30

*Go to town for the mail.

*Depending on the season, rest of morning will be spent hoeing weeds or mowing lawns, picking garden vegetables, catching up on office work, driving to Red Deer for parts, or doing once a week grocery shopping in Lacombe.

10:00

*Coffee time - time to go through the mail and note which things have to be looked after right away. Mark down dates for meetings, appointments, etc.

Noon

Lunch time.

12:30 to 1:00

Rest time - we feel that a half hour nap will help prevent accidents.

1:00 p.m.

*Men go back to work on machinery, continue harvest, grind feed for the cows, get a load of hay or straw, (depending on the time of year). Mom tends to the garden, mending jeans, baking, or sometime driving tractor.

3:00

*Coffee time - time to read the daily paper (Advocate).

3:30

*Time to milk cows again.

4:00

*Children arrive home from school. Mom starts organizing supper or driving for after school activities which include: music lessons, volleyball, softball, soccer, or working with 4-H calves (again depending on time of year). If all else fails, there is usually homework to do.

6:00

*Milking is finished and it's supertime. Meals are always on time on a dairy.

6:25

*Watch weather report on t.v. and sometimes the news.

7:00

Summer
*catch up on some more yardwork, fieldwork, (hay, silage making, combining, etc.)

Winter

*evening curling (Dad, Mom and 2 children), skating; children have catechism at Church or girls and boys clubs; visiting, watching T.V., or meetings (EG, 4-H, Holstein Assoc., Milk Producers Assoc., etc.)

9:00

*Children go to bed.

10 - 11:00 *Parents go to bed - end of a long day!

Written by:
Lori Kamps
Box 1522
Lacombe, Alberta
T0C 1S0

A Day on Our Cattle Farm

Welcome to our farm. We grow grain and breed both cattle and horses. This keeps us very busy all year round. I am a farm wife and mother of two teenage daughters. During the year, from April 1st until November 30, we employ two men who help us plant and harvest the grain as well as help with animal chores and maintenance around the farm. Everyone has something important to do.

Our day begins at 6:00 am, when our oldest daughter, Sandy, has to get up so that she can catch a school bus at 7:15 am which will take her for a 1½ hour ride to the High River school which is 30 km. Krista, who is 13 years old, must get up at 7:00 am to be ready by 8:05 am to take a 3/4 hour bus ride to a junior high school 15 km away. Both girls arrive home at 4:20 pm in the afternoon. They both have chores to do after school and they usually enjoy helping feed and look after the animals. In the spring they also have to groom and ride their horses each day to get ready for horse shows. When the men are very busy in the fields the girls and I have to keep the horse stall in the barn cleaned out.

Sandy and Krista also help plant and weed our large garden - which isn't always fun. Both girls know how to cook and often make cakes or cookies for lunches. They can also make dinner for me if I am busy or away.

I have to drive the girls to and from all school functions or to visit their friends because it is too far to walk or ride a bike and we don't have buses out here. Therefore they don't participate in all of the after school activities. Sandra especially enjoyed playing on the girls baseball team and Krista likes basketball. They both went to a girls club and took piano lesson also.

After breakfast is served and the girls get on the school buses I usually go outside to help my husband with the animals. Today I am going to tell you about our cattle. The busy time with our cattle begins in March when they are going to have their calves. When the cows are calving my husband and I take turns checking them every 2 hours during the night and day. We watch closely for any problems that might arise. Sometimes a mother cow has trouble delivering her baby and my husband and I have to help the cows and baby during birth. When a baby calf is born it is very wet so it is important that the baby has a dry place to lay. We put out lots of straw for the cows and calves to lay in. We also watch closely to see that the calf gets up soon after birth and drinks milk from it's mother to get strength and warmth. If the calf can't get up itself, then we have to help it and that can be both interesting and dangerous as some mother cows don't like people near their new babies. Sometimes, if a calf is born during a storm or very cold weather, it must be brought into the house to dry off and warm up. Even after the calves are a week old, and frisky and jumping, the farmer watches to make sure that there isn't any sickness because colds and flu spread quickly among calves just like in your classroom. The hardest work is over now. Usually by May the weather is warmer and the calves are healthy and on their own with their mothers care. At this time we give them vaccinations against disease and remove any horns and often they are branded also. In early June we hire a large cattle truck and haul the cattle to a summer pasture.

From June until November the cattle lead a lazy life wandering through the pasture and eating. During this time we check on them at least once during the week and make sure that they have salt and minerals, water and grass. We also have to make sure that the fence is in good repair and that the gates are kept closed so that the cattle don't get out.

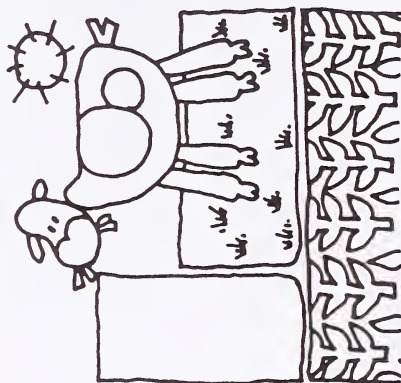
By November the feed is usually gone and it is time to bring the cows and calves home. We load up our horses into trailers and take them to the pasture where the cows are. We gather the cattle together and move them into a corral and into a truck which brings them back to the farm. The calves, which by now are almost as big as their mothers, are separated from the cows. We then haul the calves to the auction mart where they are sold to feedlot owners who fatten the calves for beef. From now on the feedlot workers will be very busy keeping the calves healthy and growing.

During the winter months we feed the cattle grain and hay which are grown on our farm. The straw which the cows need for bedding is also from our farm. July is a very busy time for us because we have to cut the hay and let it dry for a few days before we make it into bales. If we get rain at time time it is not good because it spoils the hay.

As you can see, a calf is not just born by itself and grows up into a beef animal, without a great deal of work, worry and care by a farmer and his family.

Written by:

Sharon Cooke
Blackie, Alberta
T0L 0J0



A Day on Our Sheep Farm

We have a flock of 150 ewes on our farm. Our flock numbered 80 head last year which we bred to lamb in April. However, last fall we bought 70 more ewes some of which are lambing now.

My husband and I have three teenage daughters. We don't have any year-round hired labour but we usually hire a student to help with haying, fencing or other jobs during the summer. The oldest girl in the family goes to high school in a town 40 kms away and must be up by 6:30 to catch the school bus at 7:15 am. The other two girls go to junior high in a village 13 kms away and catch the bus at 8:20 am. My husband goes outside to do the chores about 8:30 am and if I'm going to be home for the morning I do exercises to one of the T.V. programs before I do the housework.

The chores consist of feeding hay to the ewes and grain and hay to the lambs in the feedlot. We feed out our own lambs and also buy lambs in the fall to finish during the winter. We only have 30 lambs left out of a total of about 330 head that we fed out. One pail (22 L) of barley twice a day is enough for 30 lambs.

We have the ewes divided into 2 flocks. The ones who won't lamb until April are fed hay in a small pasture. The ones that are lambing now are in a corral next to the barn. When a ewe lams we put her and her lambs (we hope they all have twins) in a small pen in the barn for a day or two to get acquainted and to be sure the lambs are getting milk.

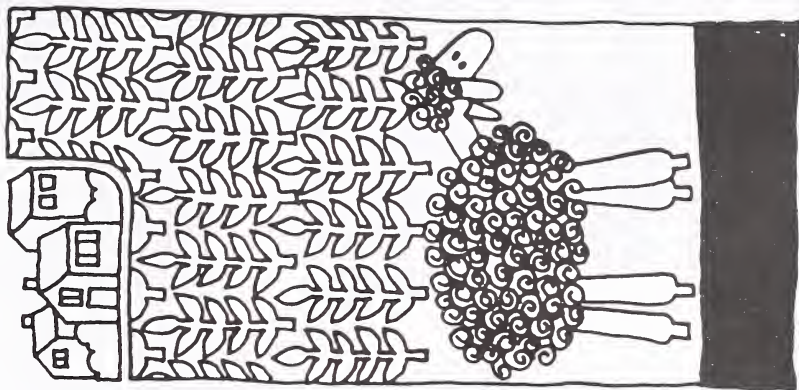
All the hay and grain for the sheep is grown on the farm but we have to go to the town 40 kms away to buy salt, mineral, vaccines or other supplies.

When the ewes are lambing we check them every 3-4 hours even through the night, especially if the weather is very cold. In May when the lambs have all been born they are all turned out to pasture. Later in the summer the lambs are weaned and put into the feedlot. When they get to weigh about 150 lbs we sell them. The prices for lambs are announced on the radio. We listen to CBC radio during the noon hour for market prices not only for lambs but for grain and other livestock.

I am usually out helping with the sheep during lambing, checking ewes, moving them out of the barn, ear-tagging lambs or cleaning up in the barn. The girls also help. They do the chores when we are away at meetings, doing business in town or curling or at other social activities. They also help when we weigh the lambs for market, or they might pack the wool fleeces into sacks when we hire people to come in to shear.

Written by:

Leslie Willicks
Blackie, Alberta
T0L 0J0



A Day on Our Irrigation Farm

People

This is a 2-family farm which also hires workers. Don, Louise, Frances (13), Jeffrey (12), Ken, Pat, Tom (6) and Scot (3) Alberts. Mel Rath, Vic Pederson - feedlot manager and worker. We also have casual labour for truck driving, etc.

4:00 AM

Don and Ken check the weather to see if it's calm. If no wind they spray barley or corn for weeds. If windy - back to bed.

5:00 AM

Don and Louise get up - have coffee - read Bible and pray together. They discuss the days plans.

6:00 AM

Don meets Ken in north barley field to move the 2 half - mile wheel sprinklers. Little engines are started to move the sprinklers to the next setting. Louise reads, writes letters, works in garden or makes breakfast and school lunches.

7:00 AM

Don and Ken return from field for breakfast with families.

6:00 AM

Mel and Vic start feeding the cattle at the feedlot. They are fed a mixture of corn and barley silage, haylage (alfalfa) and hammerer barley. They also walk through the pens to check the cattle for sickness or injury and to check if the waterers are working properly or need to be cleaned out. Any sick animals are put in the sick pen and treated. Cattle are weighed, branded and inoculated when they enter the feedlot. They are weighed when they leave and in between to check rate of gain. All feed is weighed for our records and for billing to our customers. The cattle are sold to packing plants on the rail grade system. All our produce grown including: corn, barley and alfalfa is fed to cattle in the feedlot.

7:00 AM

Frances, Jeffrey and Tommy get up, breakfast and prepare to catch the school bus to Brooks. They leave at 7:45 and return at 4:35. It's a long day considering we live only 10 miles from Brooks - a 15 minute trip by car.

7:45 AM

Louise leaves for Patricia (10 miles) where she is Principal of a 2 room country Elementary School. She does a lot of homework after 9:00 PM when Frances and Jeffrey go to bed.

Day Time Activities

Pat does all the record keeping for the farm and feedlot. This involves paying bills to machinery, fuel, feed, fertilizer, utility, veterinarian supply companies as well as payroll checks to all employees. Pat does inventory of grain, silage, cattle, puts out a monthly financial statement on the IBM computer. She also does income tax and government forms.

Don and Ken check on feedlot activities and check the 4 pivot sprinklers to see that the pumps are working properly and the liquid fertilizer calibrations are working accurately. The corn is cultivated between the rows at this time of year also. They get the forage harvester and truck ready to cut the first crop of alfalfa.

Suppliers Mail

- we drive into Brooks to get it at the post office
- No delivery.

Fertilizer

- delivered from Green Acres in Lethbridge
- we also use manure from feedlot - applied by custom operator in fall.

Fuel

- Gas and oil delivered from UFA dealer in Patricia.

Houses heated

- natural gas - we all members in Gas Co-op.

Groceries

- bought in Brooks - 3 large grocery stores there.

Vehicles

- mostly G.M. local dealers in Brooks - we have an independent mechanic service them.

Clothes,

Furniture

Stores

- we mostly buy locally in Brooks.

Community

Activities

Don is Chairman of Eastern Irrigation District Board of Trustees. This authority supplies water for irrigation farms and ranches and manages community pastures for the cattle of the area. Don has several meetings per month and travels to deal with governments.

Don's family are members of Duchess Mennonite Church.

Pat takes Scot to Nursery school Thursday morning in Brooks. Where there she does books for the Brooks Toy Library and Nursery School.

Francis plays Junior High basketball, Jeff plays Pee-Wee Hockey and Tommy takes skating lessons at Brooks Recreation Centre. In summer the kids take swimming lessons there. Ken plays hockey, Ken and Pat curl.

Activity 24



FAMILY PORTRAITS: FARMERS

STUDY QUESTION:

How would you like to be a scientist, a mechanic, a trucker, a weather forecaster, a mid-wife, and a manager - and a teacher, a hockey coach, a nurse, an engineer, or a cook at the same time?

THE ACTIVITY:

In this activity children do skits about farm people to portray the variety among them.

SUBJECT AREA:

Social Studies

CURRICULUM CONCEPTS:

LANGUAGE ARTS

Read a variety of materials: biographical sketches.

Developing thought processes by writing: descriptions; expressions of feelings, emotions: journals, scripts, poems.

Using creative dramatization and dialogue.

SOCIAL STUDIES

Planning neighborhoods and local communities: Canadian communities today.

AGRICULTURE CONCEPTS:

Farmer: farm life.

PURPOSE

To introduce children to the concept of farm life and each person's role in the farm family.

To give the children the opportunity to further develop their language skills.

MATERIALS REQUIRED:

Information sheets listing typical daily activities of various types of farms (see activity 23).

Picture depicting a typical activity of the farm. Supplied in this activity.

TIME REQUIRED:

2 to 3 class periods.



PROCEDURE:

Part One

Introduction

Explain to your students that today they will be writing a story and developing a skit about daily life on a farm.

Part Two

Journal Writing

Form groups based on the families listed on the information sheets in Activity 23.. Have each child pick a member of the family and write freely, in a journal, about that person: what he or she might be like, how he or she might fit in the family.

Part Three

Imagining

Have each group discuss their family cluster and develop a skit to reflect some aspect of the family's life - a behavioural sketch.

Part Four

Conclusion

Perform the skits, recognizing and enjoying the variety of behaviours and personalities presented.

FOR DISCUSSION

What role's do the people play?

How does the life they lead affect their behaviour?

What kinds of characteristics do the people have in common?

What kinds of leisure activities do the people do on the farm?

Do they have a lot of leisure time?

EVALUATION STRATEGIES

Have children play charades with one group showing a normal activity that their family does while another guesses the activity.

Use the write up for the skits and your observations of it as methods of evaluation.

RELATED ACTIVITIES

1. Have each group make individual pencil sketches portraying the family members whose parts they play in their skit; encourage the groups to also sketch group portraits of their imagined families. Have the children compile the sketches in a family album and add inscriptions to identify family members and their roles.
2. Have the children act out what they think a banker or another person involved in agriculture does during their day.





Above - Mom helps Dad give the calf a needle.

Below - Dad shows Jamie how to make his calf stand still for inspection.



Activity 25



VACATION ON A FARM

STUDY QUESTION:

What would it be like to spend your summer on a farm?

THE ACTIVITY:

In this activity children make brochures about farm vacations.

SUBJECT AREA:

Social Studies

CURRICULUM CONCEPTS:

LANGUAGE ARTS

Communicate orally: reports.

Use appropriate forms of written language: brochures.

SOCIAL STUDIES

Planning neighborhoods and local communities: Canadian communities today.

AGRICULTURE CONCEPTS:

Farm: farming; farm life.

PURPOSE

To introduce the concept of a vacation on a farm to the children.

To give the children the opportunity to further develop their language skills while they learn about a farm vacation.

MATERIALS REQUIRED:

Information sheet about Alberta farm families who welcome guests on their farms. Supplied in this activity.

TIME REQUIRED:

2 class periods.



PROCEDURE

Part One

Preparation

Obtain copies of the brochure “Alberta Country Vacations” from Travel Alberta (see Teacher Resource, this lesson).

Part Two

Introduction

Read or show one of the Travel Alberta brochures to the children. Ask the children what view of the country they get from it and if it interests them in a trip to the farm.

Part Three

Discussing

Ask children what they feel would be the highlights of a summer vacation in the country. List these highlights on the board as you encourage the ideas with questions like (What animals would you see?/What special activities could you do?).

NOTE:

If the school is in a city some of the children may have relatives in the country and could tell about holidays spent there. If the school is in the country, some of the children may know of guest farms, or they could recall highlights of their own summers at home.

Making Brochures

Have the children work in groups to draw up brochures advertising farm vacations. Their discussions will serve as the basis for their brochures.

Part Four

Conclusion

Display and view the brochures, noting similarities and differences in emphasis among them.

FOR DISCUSSION

What activities are available to a person on vacation in the country?

What kinds of animals would they see during the vacation?

What kind of farm would you like to vacation on in the summer?

What else would the person see during their vacation?

What would the people taking vacationers in have to do during the visit?

EVALUATION STRATEGIES

Have children draw pictures showing fun activities a person could do on the farm.

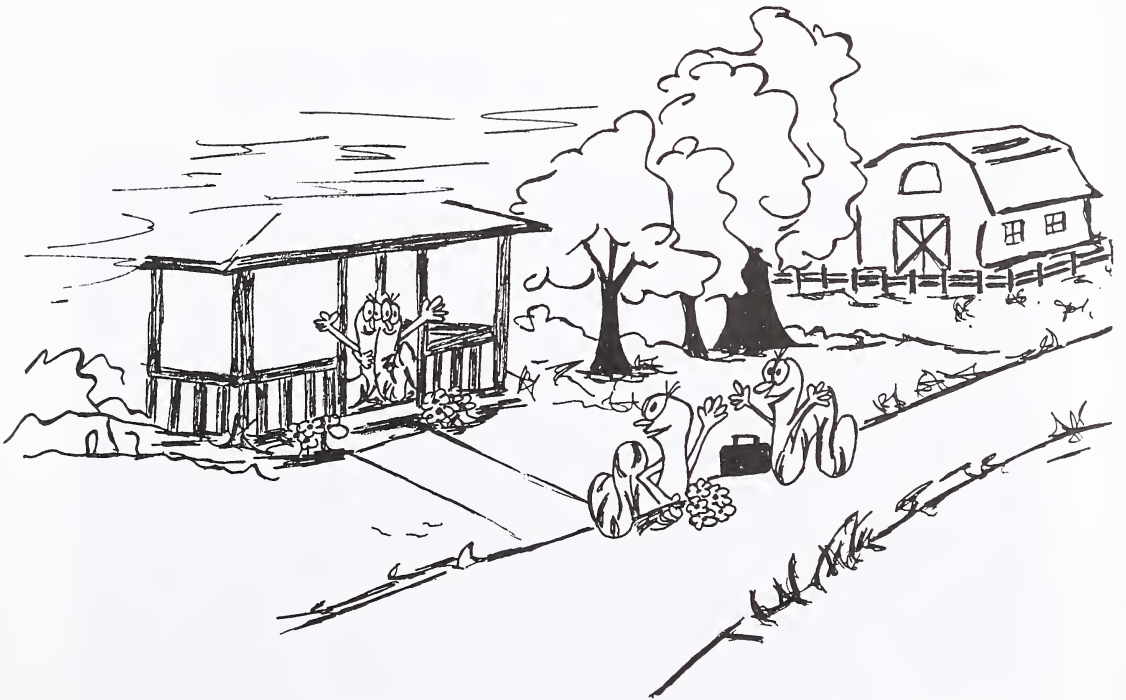
Use the brochures as a method of evaluation.

Have children complete the following sentence:

Slide was looking at a brochure for a farm vacation and it said

RELATED ACTIVITIES

1. Some of the children may have lived on farms in other countries and may be willing to tell about their lives there. Or their parents or other relatives may be willing to do so.



Vacation on a Farm



Travel Alberta provides a brochure, "Alberta Country Vacations", which includes information about farm and ranch vacations.

The following types of information are included in the brochure:

- Where the farms are.
- Contact persons.
- What kinds of activities are offered.
- Prices.
- Dates of operation.
- Age groups accepted.

The telephone number for Travel Alberta is 427-4321 in Edmonton.



UNIT 6 - PLANTS AND FOOD

INTRODUCTION

The purpose of this unit is to offer opportunities for children to explore the variety of common food products that originate on vegetable and grain farms. We intend that through identifying a number of common Alberta crops and some of their products the children will begin to recognize the degree of interrelatedness among rural and urban communities.

Several of the questions guiding the selection of activities for this unit are listed below:

1. What are the major crops of Alberta?
2. What are their characteristics and values?
3. What common foods are made from them?

OBJECTIVES

1. To identify some of the vegetable and grain plants we use for food.
2. To observe and record the growth of plants, from seeding to maturity.
3. To explore the relationships between grains and vegetables and processed foods.
4. To participate for a while in the processing and distribution of plant products.



Soon these will turn orange. Do you like pumpkin pie?

Activity 26



MAKE A CALENDAR

STUDY QUESTION:

Which vegetable or grain do you eat in summer? fall? winter? spring?

THE ACTIVITY:

In this activity the children make a calendar that highlights agricultural plants.

SUBJECT AREA:

Science

CURRICULUM CONCEPTS:

LANGUAGE ARTS

Communicate orally using various forms: conversations.

Use appropriate forms of written language: illustrations.

SCIENCE

Plants and animals: observe and describe characteristics of plants.

AGRICULTURE CONCEPTS:

Agricultural plants: seasonal change.

PURPOSE

To introduce children to the concept of seasonal changes in plants and eating patterns.

To give the children the opportunity to further develop their language skills while they learn.

MATERIALS REQUIRED:

A selection of paper and light cardboard to suit your calendar designs.

A number of calendars to examine as models.

Illustrations of agricultural plants.

The poem about seasons. Supplied in this activity.

TIME REQUIRED:

2 to 3 class periods.



PROCEDURE

Part One

Introduction

Read the poem about the seasons to the children to introduce this activity.

Part Two

Relating

Ask children how their clothing changes from spring to summer, summer to fall, etc. Then relate this to the seasonal changes in plants and eating patterns. Ask what plants are eaten and grown in each season.

Part Three

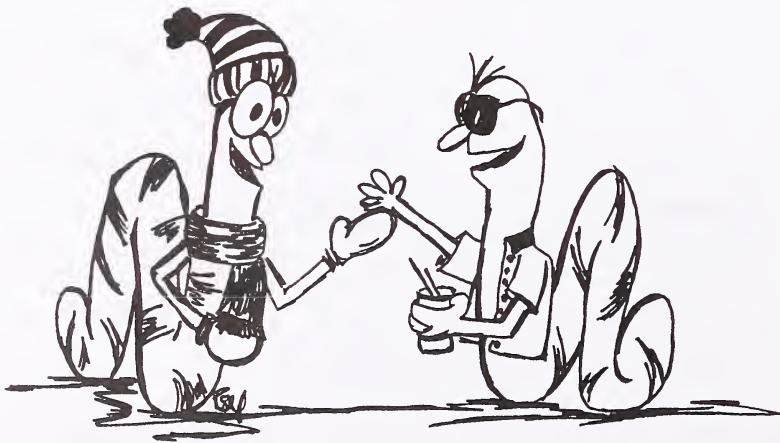
Conversation

Have the children work in pairs or threes to produce twelve task groups. Ask each group to prepare a food-related illustration for a specified month. They may want to add inscriptions e.g. interesting facts about plants. If the children work with black and white drawings, the calendar can be duplicated if desired.

Part Four

Conclusion

Assemble the calendar. Have a brief show in which the children reflect on changes in eating patterns with the seasons. Consider offering copies of the calendar to other classes in the school.



FOR DISCUSSION

Why do we not grow certain things in the winter time?

What kinds of vegetables do we eat in the winter?

Summer and fall are good times for fresh vegetables and grains if one has crops or gardens! Right?

In what season do things usually start to grow?

What activity takes place in the fall in which we gather up all the grain and vegetables?

EVALUATION STRATEGIES

Have children draw pictures to go with poem.

Use calendar as a method of evaluation.

Have children write a short description of the special things that happen over a year with reference to seasonal plant changes, etc.

RELATED ACTIVITIES

1. Do a survey in the school - a "street interview" approach - to determine the most and least popular vegetable or grain product. Have the children ask both what a person's favorite vegetable or grain product is and where it is produced - especially whether or not it is in Alberta.
2. Read books about seasonal events on a farm - e.g. Alice and Martin Provensen. The Year at Maple Hill Farm. New York: Atheneum, 1978.



TEACHER RESOURCE



**HI AGAIN!
SLIDE HERE!**

**I have some information
for all the children**

As I visited the different places around here,
some surprising new things have become very clear.

I saw that in spring people have seeds to sow,
so that little plants will be able to grow.

In the summer, they watch the plants grow tall,
and give them water if there is no rainfall.

Fall is when the people are harvesting frantically,
because snow always seems to come so rapidly.

When the ground is all covered in ice and snow,
all of the plants are much too cold to grow.

So it seems for some highly mysterious reasons
the growing of plants has to change with the seasons.

author - C.G. Bibby

Spring



Summer



Autumn



Winter



Activity 27



GROWING PLANTS

STUDY QUESTION:

How long does it take for a seed to sprout and what can I do to help it grow into a healthy plant?

THE ACTIVITY:

In this activity children plant seeds in two different soils and tend the seeds as they grow into plants.

This activity is recommended for March/April.

SUBJECT AREA:

Science

CURRICULUM CONCEPTS:

LANGUAGE ARTS

Use appropriate forms of written language: simple charts.

Communicate orally: reports; discussions.

SCIENCE

Plants and animals: observe and describe stages in growth of plants.

Environment: identify various parts of an environment and begin to infer their interdependence.

AGRICULTURE CONCEPTS:

Germination; plant growth; crop production.

PURPOSE

To introduce children to the concepts of plant growth and crop production.

To give the children the opportunity to further develop their language skills while they learn.

MATERIALS REQUIRED:

Information sheet on crops of Alberta and student log sheet. Supplied in this activity.

Packets of seeds; soil; containers.
(ice cream pails/cottage cheese containers/ coffee tins)

TIME REQUIRED:

To Start: One class period.

During Growing Period: 15 minutes per class.

To Finish: One class period.



PROCEDURE

Part One

Introduction

Survey the class to see how many students have plants grown in their home and how many families grow gardens. Ask them to list (orally) what things are done to grow plants and what stages growing plants go through.

Part Two

Preparation

Distribute log sheets for growing plants and review the steps listed.

Divide the class into groups. Give each group a pot of soil and a packet of seeds to plant and tend over a number of weeks.

Equipment

If ordinary garden soil is used, rather than sterilized potting soil, it may be important to provide a product such as Damp-off to counteract soil fungus. Provide plant food if possible and allow the children to decide in their groups whether they want to use it in growing their plants.

Part Three

Seeding Recording

Have the children plant their seeds and record on their log sheets what they did. Have them also write in the farming steps corresponding to their own.

Part Four

Conclusion

Briefly discuss daily maintenance encouraging each group to work closely together on a daily basis to care for their growing plants. Identify and post a date (5-6 weeks) for a class conference when the groups will report on their crops.



Part Five

Follow-up

At the appointed time for the conference have the groups display their plants and share their progress in caring for them. Note differences in size and appearance of plants and in the appearance of the soils. Briefly discuss possible reasons for these differences, emphasizing the importance of good soil, adequate moisture and sunshine, and weed control in crop production.

FOR DISCUSSION

How did you care for the plant?

What conditions are necessary for plant growth?

What is germination?

What did your plant produce?

How did you know when the plant was mature?

EVALUATION STRATEGIES

Have children draw a picture of their plant showing what it was like at the beginning and at the end.

Use the log sheet as a method of evaluation.

Have children write a short story about how Slide is affected by plant growth.

RELATED ACTIVITIES

1. Obtain samples of several different types of soil - e.g. garden soil, potting soil, sand, clay. Have the children compare them visually and by touch when they are dry and wet. Briefly discuss the likely influences of these differences on plant growth - and on grain quality and price.



Crops of Alberta

Vegetables and Special Crops

Potatoes

Largest vegetable crop in Alberta.

50% used for processing:

- fries
- dehydrated granules
- chips
- canned potatoes

Carrots

Second to potatoes; an expanding industry

Peas

Alberta a major exporter of processed peas

Small Fruits

- Strawberries
- raspberries
- saskatoon

Special Crops

- Corn
- Beans
- Mustard

Other Vegetables

- Cabbage
- Onions
- Lettuce
- Parsnips
- Beets
- Rutabaga
- Mushrooms
- Tomatoes
- Cucumbers

- A variety of vegetables are grown commercially by market gardeners and greenhouse operators.
- Some crops are produced by contracts between growers and processors.
- Major potential is in increased demand for fresh vegetables. Many are sold at farmers' markets or at farm gates. Many are sold to retailers and wholesalers and to processors.
- Greenhouse produce mainly bedding plants, flowering plants, and seasonal specialties such as poinsettias and lilies.



Crops of Alberta

Forage Crops

Alfalfa

fescue

brome

Although bales of hay are a common sight in many parts of Alberta, large amounts of forage crop seeds are produced in the northern areas of the province, especially in the hilly areas of the Rockies.

Forage crops are used primarily for animal feed and for pasturage after the seed is harvested. They make up 70 - 80% of food rations for ruminant livestock.

Forage crops also restore valuable nutrients to the soil and thus help farmers maintain the productivity of their soil.

In addition, some of the forage seeds and crops are produced for sale to other countries.



Crops of Alberta

Cereals and Oilseeds

Wheat

- Major Alberta crop.
- Uses about 20% of Alberta's occupied farmland.
- About 25% of total crop cash receipts.
- Several classes of wheat grow best in different areas and are used for different purposes: bread, pasta, baking, flour.
- The Canada Wheat Board controls quotas and deliveries to elevators and sells the wheat

Barley

- 2nd largest acreage
- 2nd highest crop cash receipts; about 15% of total.
- About 50% used as live-stock feed.
- 2nd main use: malting
- Some also used as a soup cereal and for flour.

Oats

- Minor cash receipts but imp. crop.
- Most used as feed for livestock.
- Best used for race horses and making oatmeal.

Rye

- Small cash receipts.
- 2nd to wheat as source of flour for bread making.
- Also used for producing Alberta whiskey.
- Used in some cereals e.g. Sunny Boy.
- Main use is for animal feed.

Canola

- 3rd highest crop receipts; about 10% of total.
- Mainly valued for its edible oil; accounts for much of edible oil used in Canada

- vegetable oil, margarine, shortening.
- Valuable by-product of oil extraction is a high-protein meal for animals.

Flax

- Uses small proportion of Alberta farmland.
- Mainly oilseed flax grown in Alberta: for linseed oil. (Fibreflax, for manufacture of linen, may be grown in future.)
- Linseed meal, a by-product of oil extraction: popular livestock feed.

STUDENT RESOURCE

Log Sheet: Growing Plants



Keep a diary about your plants as they grow. Write down what you do and what you notice. Also, write your thoughts about the project - how do you feel as you watch your plants grow?

Growing My Plants

Step 1: Loosen soil

Step 2: Prepare holes, plant seeds, cover seeds

Step 3: Care for plants - water, food (fertilizer), sun, weeding

Date:

Date:

Date:

Activity 28



TAKE A PLANT QUIZ

STUDY QUESTION:

Can you tell which plants are used to make your favorite food?

THE ACTIVITY:

In this activity children identify the links between some of their everyday foods and crops of Alberta.

SUBJECT AREA:

Science

CURRICULUM CONCEPTS:

LANGUAGE ARTS

Read a variety of materials: pictures.

Use contextual analysis to predict words.

SCIENCE

Plants and animals: classify plants and animals in various ways e.g. uses.

AGRICULTURE CONCEPTS:

Food processing: agricultural products.

PURPOSE

To introduce children to the concept of food processing - the number of people involved and the foods made.

To give children the opportunity to further their language skills while learning about the processing of agricultural products.

MATERIALS REQUIRED:

Quiz on plants. Supplied in this activity.

Samples of semantic maps. Supplied in this activity.

Recipe for chocolate chip cookies.

TIME REQUIRED:

2 class periods.



PROCEDURE

Part One

Introduction

Read a recipe for chocolate chip cookies (or any treat) to the class asking students to identify which ingredients are grown and where. Alternatively, have the class make chocolate chip cookies and explain where all the ingredients come from and who has helped to bring them to the class. Discuss the agriculture products used in the cookies.

Part Two

Predicting

Distribute quiz sheets. Have the children do the quiz individually or in pairs. Compare responses, noting both similarities and differences among children's favorite foods.

Part Three

Conclusion

Use simple flow sheets to review the connections suggested in each item, noting the variety of people and jobs included in the processing of these foods.

FOR DISCUSSION

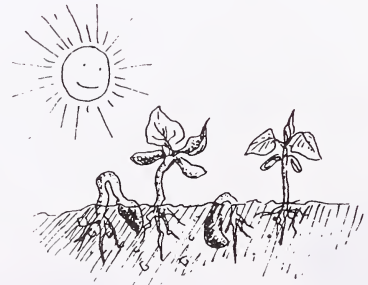
What products go into chocolate chip cookies? Which ones are agricultural?

What people are involved in bringing food to you?

Who is the Buyer?

What foods that you eat do not contain agricultural products?

What agricultural products are in your favorite food?



EVALUATION STRATEGIES

Have children list the ingredients that go into their favorite food and draw a picture of it.

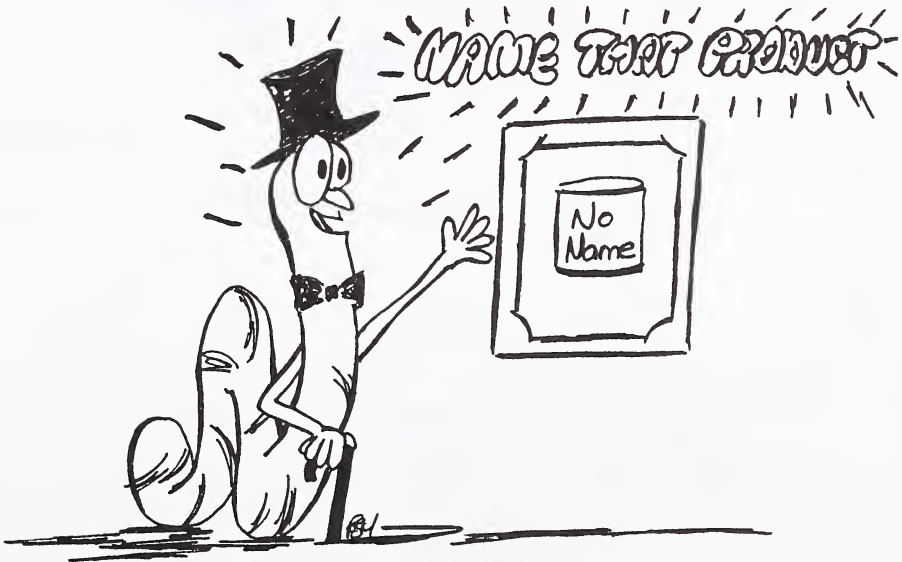
Use task sheets as a method of evaluation.

Have children complete the following sentence:

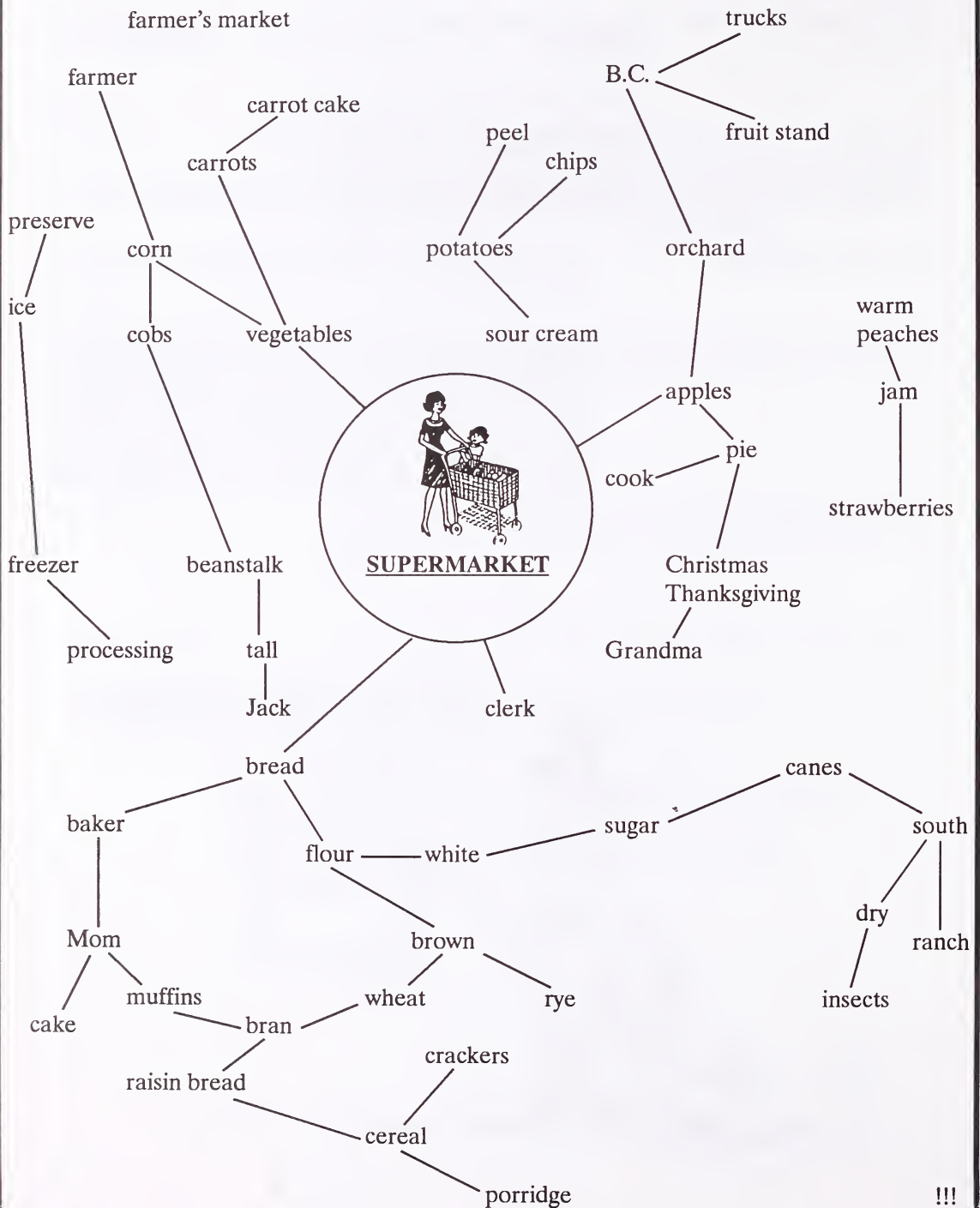
Reading the ingredients on a package of his favorite food, Slide found

RELATED ACTIVITIES

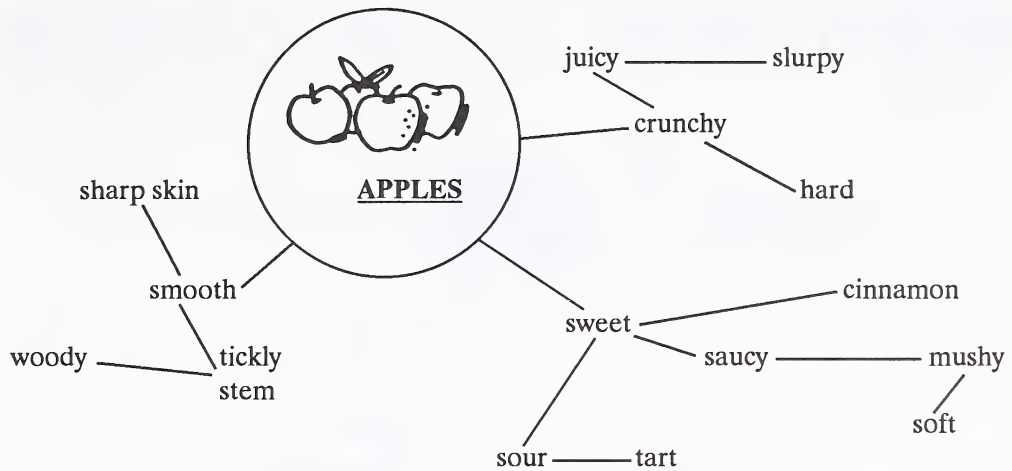
1. Have the children work in pairs to develop additional items for a class quiz done orally.
2. As a class do a brainstorm of the word "supermarket" or some other word centrally related to plants and plant products. Record the associations in a semantic map. A simple example is illustrated in the resource section but children's associations are likely to differ in accordance with their individual experiences. Briefly summarize the results, emphasizing the extended meaning of the central word and the interconnections among the individual words in the map.



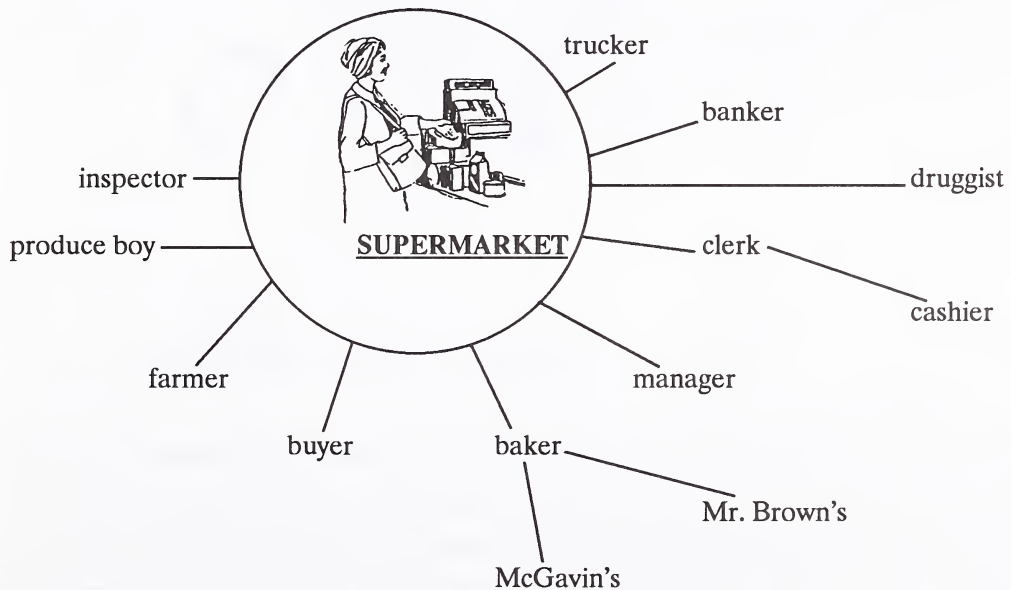
Brainstorm: Semantic Map



Focused Brainstorm: Taste and Texture



Focused Brainstorm: Jobs



PLANT QUIZ



1. What does your



have in common with your piece of



2. What does



have to do with



PLANT QUIZ



3. What do you eat every day that contains





4. What is the same about these products?

PLANT QUIZ



5. What is the connection between this

and this?



6. What is your favorite cereal?

7. What crop does it contain?

Activity 29



PLANT RHYMES

STUDY QUESTION:

Can you fiddle with each riddle and find its final word?

THE ACTIVITY:

In this activity the children read riddles and rhymes about plants and identify a missing word in each one.

SUBJECT AREA:

Science

CURRICULUM CONCEPTS:

LANGUAGE ARTS

Appreciate rhythm in language.

Use contextual and phonic analysis to identify words.

Discriminate similarities and differences of sounds/visuals.

Read a variety of materials: riddles and verses.

SCIENCE

Plants and animals: describe and classify plants in various ways.

AGRICULTURE CONCEPTS:

Agricultural plants.

PURPOSE

To introduce the children to various agricultural plants.

To give children the opportunity to further develop their language skills while learning about plants.

MATERIALS REQUIRED:

Sheet of rhymes and riddles about plants and answer sheet. Supplied in this activity.

TIME REQUIRED:

1 class period.



PROCEDURE

Part One

Introduction

Inform the class that they are going to act as language detectives and find lost words by matching sounds.

Part Two

Reading/Listening

Distribute copies of the rhyme sheets. Have the children work in pairs to read the verses to each other so as to hear the rhymes and complete them.

Part Three

Conclusion

Write some of the rhymes on large chart paper. Have the children read them chorally.

FOR DISCUSSION

What is your favorite plant? Why?

What characteristics does this plant have?

Do all plants need water and sunlight? Why or why not?

What plants do not grow in our climate?

Are all plants edible?

NOTE:

Some mushrooms are not good to eat, so we do not process them. If eaten they will make you sick.

What kind of plants are usually grown in your garden?

EVALUATION STRATEGIES Have children write a short poem about their favorite plant.

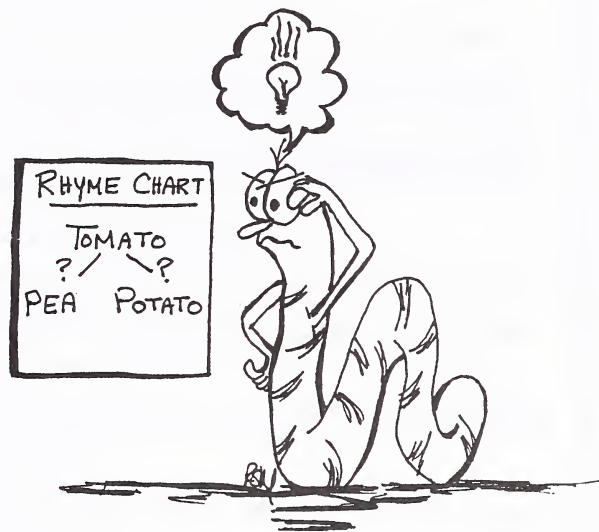
Use the task sheet as a method of evaluation.

RELATED ACTIVITIES

1. Have the children illustrate the verses.
2. Brainstorm sensory words related to processing, selling, or eating agricultural products and use these for writing additional riddles or simple verses to read together.

PLANT RHYMES - ANSWERS

1. away
2. me
3. gravy
4. hour
5. round



Plant Rhymes



An apple a day

Keeps the doctor _____.

Tomatoes and cabbage have vitamin C;

They are both good for _____.

Insides of mushrooms are soft and wavy;

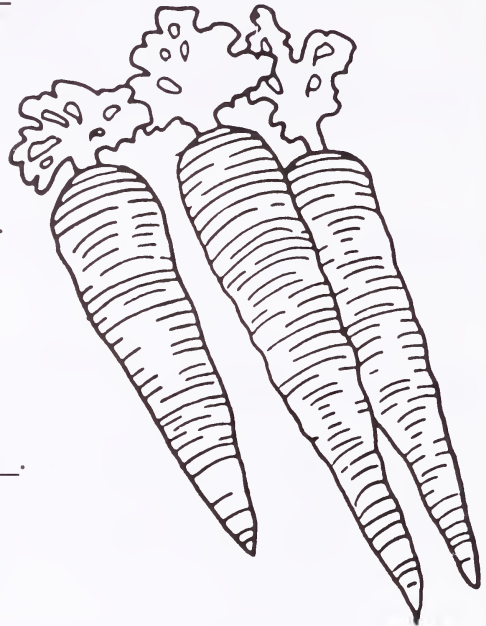
We use mushrooms in our _____.

Wheat and rye are ground to flour;

Baker's use them every _____.

Carrots grow beneath the ground;

They are slender, long and _____.



Activity 30



BAKE SALE

STUDY QUESTION:

How many different grain and vegetable products do you put into your favorite goodies?

THE ACTIVITY:

In this activity the children will bring baked items for display and sale at school.

SUBJECT AREA:

Science

CURRICULUM CONCEPTS:

LANGUAGE ARTS

Read a variety of materials: recipes.

Communicate orally: conversations.

Listen to various forms of spoken messages: instructions.

Use appropriate forms of written language: lists; labels.

SCIENCE

Properties of matter: observe and describe matter undergoing changes.

AGRICULTURE CONCEPTS:

Plant products: food processing.

PURPOSE

To introduce children to plant products and the processing of these products.

MATERIALS REQUIRED:

Boxes for holding money.

Child's data sheet on plant products used in baking. Supplied in this activity.

TIME REQUIRED:

To Prepare Baking: give parents a notice one week in advance.

To Hold Sale: one noon hour.

To Finish: one class period.



PROCEDURE

Part One

Introduction

Introduce the idea of a bake sale and discuss

1. how to publicize it,
2. what to include, and
3. what to do with money received.

Part Two

Recording

Ask the children to work with their parents to prepare goods for a bake sale. Ask the children to record what plant products are used in their baking - e.g. oil, flour, oatmeal. Encourage them to also record the grain or vegetable sources of the products - e.g. oil from sun-flowers or canola, flour from wheat, oatmeal from oats. The children could use copies of the simple data sheet provided.

Part Three

Labelling

Have the children prepare labels to display with their baked items at the sale. Have them indicate the prices of their items and some interesting facts or comments about them, related to plant products used in the baking. If the funds are earmarked for some class project the children could make a sign about it as well. Hold the sale; count the earnings.

Conversations

Part Four

Conclusion

Briefly discuss the event. Identify it as an experience in food processing and distribution.

FOR DISCUSSION

Ask children what products are in their baking.

Can you taste the product in the baking? Why and how?

How much do you think you should charge?

Why is necessary to put a list of ingredients with the baking?

How could you make the baking more desirable to buyers?

EVALUATION STRATEGIES Have children taste the baking to see if they can taste the plant product.

Have children complete the following sentence:

One day Slide was baking a cake and he

RELATED ACTIVITIES

1. Use bakery products such as flour, cereals, nuts, vegetables, or oils to do science projects involving the measuring and comparing of weights and volumes of samples of different kinds of matter.
2. Have the children write paragraphs about their baking experiences. Prepare for the writing by listing on the board either some of their recollections or several questions such as the following: How did the dough look during mixing? How did it feel? How did the baked goody smell? Taste? Share the compositions.
3. Do a baking project in class. Include selection of a recipe, shopping, baking, cleaning up and eating.
4. Contact the Alberta Food Processing Development Centre, 6309 - 45 Street, Leduc, Alberta (986-4793) for information about how home recipes have to change in order to produce commercial products.



Plant Products Used in Baking

Put a star (*) beside each item grown or produced in Alberta.

Appendix A

Glossary

GLOSSARY

The words in this glossary are presented in categories related to the activities in the handbook. The explanations of the terms are not intended to be comprehensive definitions; instead our goal is to emphasize agricultural usage and especially to highlight the way the terms are used in this handbook.

ANIMALS

animal	a living being that can move on its own - e.g. dog, horse, hog, etc.
bee	an insect which collects nectar and produces honey. Bees are housed in hives and farmers collect the honey.
broiler	a chicken or turkey raised for meat; killed at less than half mature weight.
brood hen	a chicken that is used to keep eggs warm for hatching.
bull	an adult uncastrated male bovine (cattle) used primarily for breeding.
calf	a baby cow or bull.
calve	to give birth to a calf (baby cow or bull).
cattle	more than one cow.
chick	a baby chicken.
chicken	a small bird kept for its eggs and meat (color varies).
coat	the external covering of an animal eg. mammals have skin and hair for a coat.
colt	a more specific term for a male foal.
cow	female bovine (cattle); some used for milk and some for meat.
donkey	an animal similar to the horse but has much larger ears and is smaller in size, which was used for many things in the past, but now is more like a pet.
duck	a web footed bird that is able to swim, that lives near water, and that feeds on various living things in the water - e.g. plants, bugs, etc.
ducklings	baby ducks.

ANIMALS cont'd

filly	a more specific term for a female foal.
foal	1. general term for a baby horse eg. the foal is running around the pasture. 2. to give birth to a baby horse eg. the mare is about to foal.
goat	a small animal used for milk, meat and in some cases wool.
goose	a long-necked water bird; feathers used for stuffing in pillows, quilts, jackets.
goslings	baby geese.
hatch	the emerging of the baby chick from the incubated egg.
heifer	a young cow that has not borne any (previous) calves. She remains a heifer until her first calf is delivered.
herd	a large group of cattle or goats.
hooves	hard horny feet on some animals - horses, cattle, goats, sheep.
horn	hard bony projection from the head of an animal.
horse	an animal which is used for riding or farm work; farm work includes stock handling and in the past pulling loads (draft).
kid	a young goat.
lamb	a baby sheep.
mare	an adult female horse.
mule	the sterile offspring of a horse and a donkey that is usually smaller in size and makes a different sound than a horse.
oxen	cattle used for draft purposes in pioneer days.
pet	an animal kept for the pleasure of its owner.
pig	a stout, short-legged hoofed mammal with bristly hair and a flexible snout that is raised mainly for its meat.
piglet	a baby pig.

ANIMALS cont'd

poultry	term used for farm birds - includes chickens, turkeys, ducks and geese.
rooster	an adult male chicken.
sheep	a very adaptable animal covered in wool, kept for its meat and wool.
sheep dog	a working dog used to control the herd (handling stock).
stallion	an uncastrated adult male horse used primarily for breeding.
steer	a castrated male bovine (cattle) used for its meat.
stock	animals kept on the farm for production purposes.
turkey	a large bird of the pheasant family, native to North America and kept for its meat.

BUILDINGS **OR AREAS**

barn	a building used to shelter animals. This is usually totally enclosed.
bin	a storage building for grain or feed.
corral	a fenced-in area for animals.
dairy	a farm where cows or goats are kept for the production of milk.
elevator	a building or terminal where farmers bring their grain for storage - or where grain is elevated and transferred to an alternate mode of transportation: truck to rail; rail to ship.
farm	an establishment or plot of land where food products are grown.
farmstead	area that includes the human dwelling and other buildings which are often a part of a farm.
farmer's market	a place where farmers or producers sell their products directly to the consumer.
hatchery	a building that has specialized equipment for incubating and hatching poultry eggs.

BUILDINGS OR AREAS cont'd

milk parlor	a place separate from the barn where cows are milked.
mixed farm	a farm which produces a variety of products for sale - e.g. grain and hogs.
modern farm	a farm which uses contemporary techniques and equipment.
pasture	an area of grassy land where farm animals range and feed.
pen	a stall for an animal.
shelter	a building or other structure which is used to protect animals from weather; animals usually go in and out on their own.
silo	storage building or pit in which green hay or high-moisture grains are fermented and stored as animal feed.
supermarket	a place where food produce and other items are on sale to consumers.

EQUIPMENT

baler	a machine used to compact and package roughage such as hay or straw.
combine	a machine which moves down the grain field separating the seeds from the stems of ripe plants.
cultivator	an implement that digs deep into the soil which is used for breaking up land and ripping out weeds.
equipment	material or apparatus used in farm production and operation - e.g. machines, gas tanks.
grain auger	a machine used to move or elevate grain from one place to another - e.g. from a truck to a bin.
grain truck	large four wheeled vehicle with a strong frame used for hauling animals, grain and other things. This vehicle is used heavily at harvest time.
harrows	an implement used for light, shallow loosening of the soil, for preparing seed bed and for killing weeds.
incubator	an apparatus used to keep eggs warm while hatching.

EQUIPMENT cont'd

machine	a mechanical apparatus used to assist the farmer with his work.
mechanization	the use of machines to replace hand labour.
milking machine	an apparatus which attaches to a cow's udder and sucks the milk into a holding tank.
salt feeder	a container used for giving animals salt and minerals.
seed drill	an implement used for planting the seeds in rows along the field.
sheep shears	clippers, usually electric, used to cut the wool from the sheep.
sprayer	an implement used to place a mixture of chemicals and water onto the crop that destroys the weeds, the bugs, etc., while feeding desired plants.
swather	an implement used to cut down grain or grass and place it into rows for the baler or the combine.
tractor	a machine used to pull implements and do other work on the farm - most common farm machine.
trough	a fairly large container for the drinking water or feed of farm animals.

GENERAL TERMS

agricultural	anything having to do with farming (raising crops or livestock for food or fibre) or the agriculture industry which includes marketing, processing, and trade in these products.
commercial	an enterprise designed to generate income.
environment	the immediate surroundings of a plant or animal which influence its well-being.
exhibit	an article, plant or animal which is placed on display.
fair	a gathering where exhibits are displayed and judged.
rural	a place, person or thing which is related to the country or sparsely populated area.

GENERAL TERMS

cont'd

seasons	the natural times of the calendar year when weather changes affect the growing of plants and the behaviour of animals.
soil	earth - the top layer of the ground which supports the growth of plants.
sow	to place seeds into the ground for growth. (rhymes with low)
tillage	the operation of stirring, turning (plowing) or firming the soil to kill weeds or to prepare a seedbed.
urban	refers to city, town or densely populated areas in contrast to rural.
weather	the changing climatic conditions such as rain, sun, and temperature that affect agricultural production.
yield	the quantity of crop produced usually per unit area.

PEOPLE

auctioneer	a person who solicits bids for and conducts a public sale of farm animals or equipment.
baker	a person who uses the products of farm plants, especially grains and oils, to produce bakery products for sale to retail or wholesale outlets and to consumers directly.
clerk	a person who works in a food store, bank, office or any setting where products or services are exchanged.
consumer	a person who buys things for his own use - usually items that he can't produce for himself.
farmer	a person who operates a farm.
farrier	a person who trims, cuts and fixes the hooves of horses and cows. This person also fits shoes on horses.
inspector	a person from a marketing agency or the government who evaluates a farming operation or product according to standard guidelines.
judge	a person who evaluates and scores or rates exhibits.

PEOPLE cont'd

trucker	a person who transports animals or farm produce by truck to market, between farms, or to other destinations.
Veterinarian	a person who takes care of the medical needs of animals.

PLANTS

barley	a grain used primarily for animal feed; also used for making beer.
canola	a pod crop whose seeds are used for making cooking oil.
cereal	refers to crops grown for grain - e.g. oats, barley, wheat, rye, corn; also a processed form of breakfast food.
chaff	the empty pods or scale-like seed covers which are separated from the grain in a threshing and cleaning operation.
chop	ground grain used for animal feed.
cleaned seed	seed which has been screened to remove weed seeds and chaff.
crop	plants grown for sale.
ear	the entire head of corn including the cob, husk, and silks.
fruit	the mature seed-bearing product of a plant - e.g. apple.
garden	a plot of land used to raise food-producing plants or for esthetic purposes - e.g. rose garden.
germination	the point at which a dormant seed begins to sprout, forming a new plant.
graded seeds	seeds evaluated and tested for size and condition and rated from good to poor.
grain	the edible seeds from grassy-like plants such as wheat, barley, oats, rye.
grass	a narrow-leafed plant which we grow on lawns and is used for pasture or grazing material for animals.
harvest	a time for collecting the produce from plants and animals on a farm.

PLANTS cont'd

head	the portion of a plant which contains the seed - as in grain or grass.
kernels	the individual seeds from stalks of grain.
legumes	a group of plants that have large pods containing seeds that split when they are ripe; used for food and forage - e.g. peas.
moisture	(for germination) - the water required by a seed to sprout and later to sustain life.
oats	a grain used primarily for animal feed; some used for cereal.
plant	a living organism that usually has no locomotion; has roots, cellulose cell walls, and has capacity for indefinite growth.
pod	the container for seeds on a legume plant.
ripening	the process of maturing in plants resulting in seeds that are fully developed and can be used to grow new plants.
rye	a grain crop used for bread flour and to a large extent for animal feed.
seed	-the reproductive portion of a plant. Many seeds are used for animal and human food.
sprout	the earliest emergence from a seed as it begins to germinate or grow.
stalk	the straw or stem-like part of the plant that supports the seed head.
stem	the stalk of a plant.
temperature	a factor in the germination and growth of seeds. Most seeds have minimum temperature requirements for germination and growth.
vegetable	a plant usually grown in a garden for human food - e.g. potato and carrot.
weed	a plant that is not valued where it is growing, and that harms other more desired plants.
wheat	a grain crop grown mainly for milling into flour.

PROCESS OR PROCEDURE

care	providing the necessities for a living thing - e.g. animals; food, water and shelter.
castration	the removal of testicles from male animals which is done for many reasons - eg. prevent fighting, increase weight gain.
churning	strongly stirring or agitating to combine or to separate a mixture (separate - milk to butter/ combine - flour and water to dough).
cultivating	the process of working up the land and digging up the weeds.
food processing	operations which are done to prepare food for storage or sale - e.g. canning, freezing.
growth	the development and maturing of a plant or animal.
harrowing	loosening the top soil to prepare it for the seeds and getting rid of any more weeds.
harvesting	the collecting of produce from a crop.
irrigation	providing extra water to growing crops in a dry area.
inoculation	using a needle to give an animal or plant a substance to prevent or cure disease; also introduction of selected strains of nitrogen-fixing bacteria into legume seeds.
production	the process of raising plants or animals and preparing them or their by-products for sale.
seeding	the process of putting seed in the ground to grow - sowing is a synonym of seeding.
spraying	sprinkling plants evenly with a mixture of chemicals and water intended to feed plants or prevent the development of weeds or insects.
stages	identifiable steps or degrees of development of plants or animals - e.g. seedling, growing plant, flowering plant.
swathing	cutting grain and leaving it to lie in rows on the stubble to dry.

PROCESS OR PROCEDURE cont'd

threshing	the process of removing the seeds of a plant from the stalk and the shell or chaff.
weed control	the elimination of unwanted vegetation from a crop thus reducing the competition for nutrients and water.

PRODUCTS

bread	a food baked from wheat and/or other grains and used most commonly for sandwiches or toast.
butter	a solid yellow substance of fat, air, and water made by churning milk or cream.
by-product	a substance which is used in addition to the main product - e.g. glue is made from animal hooves.
cereal	a processed mixture containing grain which is consumed as food.
cheese	substance made from milk solids.
cream	the yellowish part of milk containing 18 to 40 percent butterfat that is usually removed from the milk during processing.
egg	rounded hard-shelled body which can be used for reproduction or consumed as food; comes from poultry.
flour	cracked or powdered grain used in baking.
fresh	produce which has not undergone processing, such as freezing or canning, to change its form.
honey	a sweet liquid made in the hive by bees.
margarine	a product made of vegetable oil and milk that is used as a substitute for butter.
meat	animal tissue used for food.
milk	a white liquid produced by a mammal to feed its young. We drink milk of cows or goats.

PRODUCTS cont'd

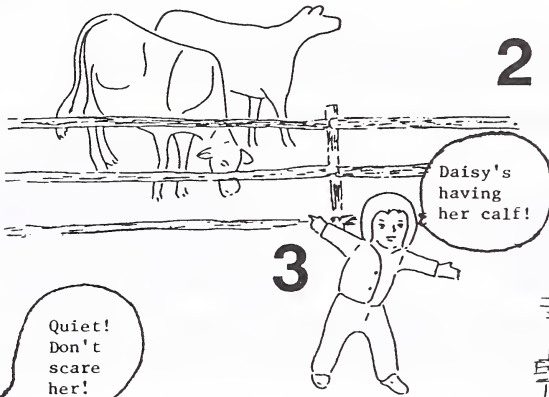
product	something produced through growth or labour - e.g. meat, vegetables, flour, tomato sauce.
vegetable oil	a fatty liquid made from the seeds or the fruit of mainly vegetables - e.g. corn, sunflowers, etc.
wool	the hairy coat on a sheep or goat used in the manufacture of garments. This is cut off each year.

Appendix B

French Student Resource Sheets



Une Fete Speciale pour Catherine



Une Fete Speciale



Associe la phrase correspondant avec le dessin à l'aide des numéros de 1 a 6. Les phrases let 6 ont déjà été associées avec leurs dessins.

_____ En route vers le paturage les enfants, passent près de l'enclos où sont gardées les vaches. Catherine remarque alors qu'un veau est en train de naître.

1 _____ Catherine a une réception pour sa neuvieme anniversaire.

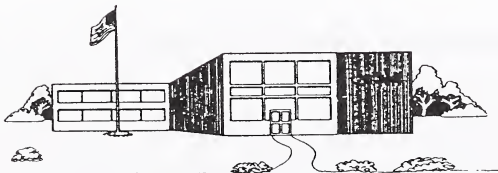
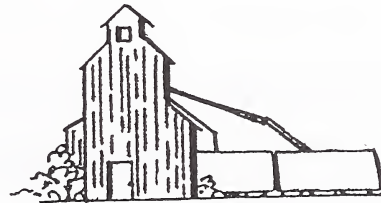
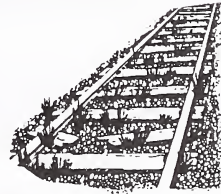
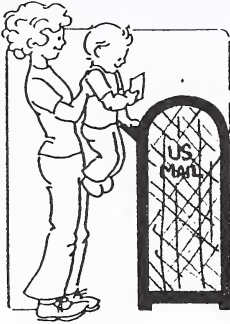
_____ Quand Maman vient à l'enclos pour regarder le nouveau-né, elle voit Daisy et son veau.

_____ Les amis de Catherine veulent voir son cheval, alors ils vont tous au paturage.

_____ Les amis de Catherine veulent aller à l'enclos pour voir le petit veau. Guillaume leur rappelle qu'il faut être doux et silencieux puis il va chercher la mère de Catherine.

6 _____ Catherine souffle sur les bougies du gâteau. _____

Peux-tu nommer ces choses?





Journal: La Croissance des Plantes

Ecris un journal pendant la croissance de tes plantes et n'oublie pas de noter ce que tu fais et ce que tu remarques. Ecris également tes pensées au sujet du projet - comment te sens-tu pendant que tes plantes poussent?

La Croissance de Mes Plantes

Première Etape: ameublis le sol

Deuxième Etape: Creuse des trous, plantes les graines et couvres-les

Troisième Etape: Prends soin des plantes: eua nourriture (engrais), soleil, sarclage

Date:

Date:

Date:

Petit Test a propos des Plantes



1. Qu'est-ce que ton

a en commun avec ton morceau de

2. Qu'est-ce que le

a de commun avec la



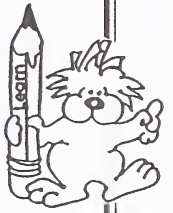
Petit Test a propos des Plantes

3. Qu'est-ce que tu manges chaque jour qui contient de la





4. Quel est le rapport entre ces produits?

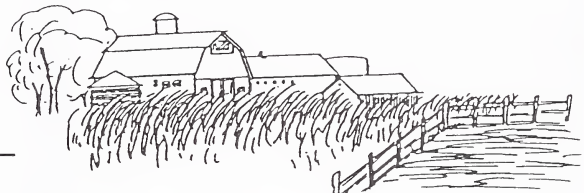


Petit Test a propos des Plantes



5. Quel est le lien entre ceci

et cela?



6. Quelle est ta céréale préférée?

7. Quel ingrédient principal-contient-elle?

Produit Agricole	Origine
Exemple: huile a cuisiner	tournesol, colza, ou mais

- 30.4 -

NLC-BNC



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